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

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

**ORDER NO. R9-2021-0001**
**AS AMENDED BY ORDER NO. R9-2023-0009**
**AS AMENDED BY ORDER NO. R9-2026-0005**
**NPDES NO. CA0108928**

# WASTE DISCHARGE REQUIREMENTS FOR THE UNITED STATES SECTION OF THE INTERNATIONAL BOUNDARY AND WATER COMMISSION SOUTH BAY INTERNATIONAL WASTEWATER TREATMENT PLANT DISCHARGE TO THE PACIFIC OCEAN THROUGH THE SOUTH BAY OCEAN OUTFALL

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

| | |
|---|---|
| **Discharger** | United States Section of the International Boundary and Water Commission (USIBWC) |
| **Name of Facility** | South Bay International Wastewater Treatment Plant<br>South Bay Ocean Outfall |
| **Facility Address** | 2995 Clearwater Way<br>San Diego, CA 92154<br>San Diego County |

**Table 1. Discharge Location**

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|---|---|---|---|---|
| 001 | ~~Secondary~~Advanced primary- and secondary-treated wastewater (blended) | 32º 32’ 16” N | 117º 11’ 00” W | Pacific Ocean |

This Order was adopted on: **May 12, 2021**
This Order originally became effective on: **July 1, 2021**
This Order as amended by Order No. R9-2023-0009 became effective on: **March 8, 2023**
This Order as amended by Order No. R9-2026-0005 became effective on: **April 8, 2026**
This Order shall expire on: **June 30, 2026**

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 (CCRs), and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than 180 days prior to the Order expiration date. The United States Environmental Protection Agency (USEPA), and the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) have classified the discharge as a **Major Discharge**.

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 San Diego Water Board on the date indicated above and amended on ~~March~~April 8, ~~2023~~2026.

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David W. Gibson, Executive Officer

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## 1. Facility Information

Information describing the South Bay International Wastewater Treatment Plant (SBIWTP), the South Bay Ocean Outfall (SBOO), and other related infrastructure, collectively referred to as the Facility, is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the USIBWC's (Discharger's) permit application.

## 2. Findings

The 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). This Order shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States (U.S.) 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 developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G are also incorporated into this Order.

### 2.3. Provisions and Requirements Implementing State Law

The provisions/requirements in subsections 4.2, 4.3, and 5.2 are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

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

**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- 2014-0009, as amended by Order Nos. R9-2014-0094, R9-2017-0024, and R9-2019-0012, except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the San Diego Water Board from taking enforcement action for past violations of Order No. R9- 2014-0009.

## 3. Discharge Prohibitions

**3.1.** The discharge of waste from the Facility not treated by a secondary treatment process and not in compliance with the effluent limitations specified in section 4.1 of this Order, or to a location other than Discharge Point No. 001, unless specifically regulated by this Order or separate WDRs, is prohibited.

**3.1.1.** The Discharger shall be deemed in compliance with Discharge Prohibition 3.1 with respect to dry weather canyon collector Spill Events (as described in section 6.3.2.1.1.2 of this Order) if the Discharger implements its Spill and Transboundary Flow Event Prevention and Response Plan, as required by sections 6.3.2.1.2 and 6.3.2.1.3 of this Order, consistent with the actions and schedules therein. The Discharger may establish that it has implemented its Spill and Transboundary Flow Event Prevention and Response Plan by providing documentation that it complied with the plan in the 72 hours before and after the dry weather canyon collector Spill Event.

**3.2.** The Discharger must comply with Discharge Prohibitions contained in the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan), incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.

**3.3.** The Discharger must comply with Discharge Prohibitions contained in chapter 4 of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan), incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.

## 4. Effluent Limitations and Discharge Specifications

### 4.1. Effluent Limitations and Performance Goals – Discharge Point No. 001

#### 4.1.1. Effluent Limitations – Discharge Point No. 001

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

**Table 2 Effluent Limitations at Monitoring Location E-001**

| Parameter [1][2] | Units [3] | Six-Month Median | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
|---|---|---|---|---|---|---|---|
| Flow | million gallons per day (MGD) | -- | ~~25~~35.0 | -- | -- | -- | -- |
| Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$) | milligram per liter (mg/L) | -- | ~~25~~110 | ~~40~~128 | -- | -- | -- |
| $CBOD_5$ | pounds per day (lbs/day) | -- | ~~5,213~~32,130 | ~~8,340~~3 7,387 | -- | -- | -- |
| $CBOD_5$ | % Removal | -- | ≥~~85~~73 | -- | -- | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids (TSS) | mg/L | -- | ~~30~~62 | ~~45~~81 | -- | -- | -- |
| TSS | lbs/day | -- | ~~6,255~~18,109 | ~~9,383~~2 3,659 | -- | -- | -- |
| TSS | % Removal | -- | ≥~~85~~82 | -- | -- | -- | -- |
| pH | standard units | -- | -- | -- | -- | 6.0 | 9.0 |
| Oil and Grease | mg/L | -- | 25 | 40 | -- | -- | 75 |
| Oil and Grease | lbs/day | -- | ~~5,213~~7,298 | ~~8,340~~1 1,676 | -- | -- | ~~15,638~~21,893 |
| Settleable Solids | milliliter per liter (ml/L) | -- | ~~1.0~~2 | ~~1.5~~3 | -- | -- | ~~3.0~~5 |
| Turbidity | nephelometric turbidity unit (NTU) | -- | ~~75~~135 | ~~100~~18 0 | -- | -- | ~~225~~405 |
| Total Residual Chlorine | microgram per liter (µg/L) | 1.90E+02 | -- | -- | 7.6E+02 | -- | 5.70E+03 |
| Total Residual Chlorine | lbs/day | ~~3.96E~~5.54E+01 | -- | -- | ~~1.58E~~2.21E+02 | -- | 1.~~19E~~67E+03 |

| Parameter [1][2] | Units [3] | Six-Month Median | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
|---|---|---|---|---|---|---|---|
| Chronic Toxicity [4][5] | "Pass/Fail" | -- | -- | -- | "Pass" | -- | -- |
| Copper, Total Recoverable | µg/L | 9.76E+01 | -- | -- | 9.58E+02 | -- | 2.68E+03 |
| Copper, Total Recoverable | lbs/day | 2.~~03E~~84E+01 | -- | -- | 2.~~00E~~80E+02 | -- | ~~5.59E~~7.83E+02 |
| Mercury, Total Recoverable | µg/L | 3.78E+00 | -- | -- | 1.52E+01 | -- | 3.82E+01 |
| Mercury, Total Recoverable | lbs/day | ~~7.88E-01~~1.1E+00 | -- | -- | ~~3.16E~~4.42E+00 | -- | ~~7.96E~~11.1E+00 |
| Benzidine | µg/L | -- | 6.60E-03 | -- | -- | -- | -- |
| Benzidine | lbs/day | -- | 1.~~38E~~93E-03 | -- | -- | -- | -- |
| Chlordane | µg/L | -- | 2.20E-03 | -- | -- | -- | -- |
| Chlordane | lbs/day | -- | ~~4.58E~~6.41E-04 | -- | -- | -- | -- |
| Dichlorodiphenyltrichloroethane (DDT) | µg/L | -- | 1.60E-02 | -- | -- | -- | -- |
| Dichlorodiphenyltrichloroethane (DDT) | lbs/day | -- | ~~3.39E~~4.75E-03 | -- | -- | -- | -- |
| Heptachlor Epoxide | µg/L | -- | 1.90E-03 | -- | -- | -- | -- |
| Heptachlor Epoxide | lbs/day | -- | ~~3.99E~~5.59E-04 | -- | -- | -- | -- |
| Hexachlorobenzene | µg/L | -- | 2.00E-02 | -- | -- | -- | -- |
| Hexachlorobenzene | lbs/day | -- | ~~4.19E~~5.87E-03 | -- | -- | -- | -- |
| PCBs | µg/L | -- | 1.80E-03 | -- | -- | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
|---|---|---|---|---|---|---|---|
| PCBs | lbs/day | -- | ~~3.79E~~5.31 E-04 | -- | -- | -- | -- |
| TCDD Equivalents | µg/L | -- | 3.70E-07 | -- | -- | -- | -- |
| TCDD Equivalents | lbs/day | -- | ~~7.77E~~10.9 E-08 | -- | -- | -- | -- |
| Toxaphene | µg/L | -- | 2.00E-02 | -- | -- | -- | -- |
| Toxaphene | lbs/day | -- | ~~4.19E~~5.87 E-03 | -- | -- | -- | -- |

Notes for Table 2

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

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents $6.1 \times 10^{-2}$ or 0.061, 6.1E+02 represents $6.1 \times 10^{2}$ or 610, and 6.1E+00 represents $6.1 \times 10^{0}$ or 6.1.

[3] The Mass Emission Rate (MER) limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the Facility (~~25~~35.0 MGD) and C is the concentration (mg/L).

[4] As specified in section 7.12 of this Order and section 3.3 of the MRP (Attachment E).

[5] The chronic toxicity effluent limitation is protective of both the numeric acute and chronic toxicity 2019 Ocean Plan water quality objectives. The effluent limitation will be implemented using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995); current USEPA guidance in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf); and *USEPA Regions 8, 9, and 10, Toxicity Training Tool* (January 2010).

### 4.1.2. Performance Goals

Parameters that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives, or for which reasonable potential to cause or contribute to an exceedance of water quality objectives cannot be determined, are referred to as performance goal parameters and are assigned the performance goals listed in Table 3. Performance goal parameters shall be monitored at Monitoring Location E-001, as described in the MRP (Attachment E). The San Diego Water Board will use the results for informational purposes only, not compliance determinations. The performance goals in Table 3 are not water quality-based effluent limitations (WQBELs) and are not enforceable, as such.

**Table 3. Performance Goals at Monitoring Location E-001**

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Arsenic, Total Recoverable | µg/L | 4.81E+02 | -- | 2.78E+03 | 7.36E+03 |
| Arsenic, Total Recoverable | lbs/day | 1.~~00E~~40E+02 | -- | ~~5.80E~~8.12E+02 | ~~1.53E~~2.15E+03 |
| Cadmium, Total Recoverable | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Cadmium, Total Recoverable | lbs/day | ~~1.99E~~2.79E+01 | -- | ~~7.96E~~1.12E+01 | ~~1.99E~~2.79E+02 |
| Chromium (VI), Total Recoverable [4] | µg/L | 1.91E+02 | -- | 7.65E+02 | 1.91E+03 |
| Chromium (VI), Total Recoverable [4] | lbs/day | ~~3.98E~~5.58E+01 | -- | ~~1.60E~~2.23E+02 | ~~3.98E~~5.58E+02 |
| Lead, Total Recoverable | µg/L | 1.91E+02 | -- | 7.65E+02 | 1.91E+03 |
| Lead, Total Recoverable | lbs/day | ~~3.98E~~5.58E+01 | -- | ~~1.60E~~2.23E+02 | ~~3.98E~~5.58E+02 |
| Nickel, Total Recoverable | µg/L | 4.78E+02 | -- | 1.91E+03 | 4.78E+03 |
| Nickel, Total Recoverable | lbs/day | ~~9.97E+01~~1.40E+02 | -- | ~~3.98E~~5.58E+02 | ~~9.97E+02~~1.40E+03 |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Selenium, Total Recoverable | µg/L | 1.43E+03 | -- | 5.74E+03 | 1.43E+04 |
| Selenium, Total Recoverable | lbs/day | ~~2.98E~~4.18E+02 | -- | 1.~~20E~~68E+03 | ~~2.98E~~4.18E+03 |
| Silver, Total Recoverable | µg/L | 5.18E+01 | -- | 2.53E+02 | 6.54E+02 |
| Silver, Total Recoverable | lbs/day | 1.~~08E~~51E+01 | -- | ~~5.28E~~7.39E+01 | 1.~~36E~~91E+02 |
| Zinc, Total Recoverable | µg/L | 1.16E+03 | -- | 6.89E+03 | 1.84E+04 |
| Zinc, Total Recoverable | lbs/day | ~~2.42E~~3.39E+02 | -- | ~~1.44E~~2.01E+03 | ~~3.84E~~5.37E+03 |
| Cyanide, Total [5] | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Cyanide, Total [5] | lbs/day | ~~1.99E~~2.79E+01 | -- | ~~7.96E+01~~1.12E+02 | ~~1.99E~~2.79E+02 |
| Ammonia (expressed as nitrogen) | µg/L | 5.74E+04 | -- | 2.29E+05 | 5.74E+05 |
| Ammonia (expressed as nitrogen) | lbs/day | 1.~~20E~~68E+04 | -- | ~~4.77E~~6.69E+04 | 1.~~20E~~68E+05 |
| Phenolic Compounds (non-chlorinated) | µg/L | 2.87E+03 | -- | 1.15E+04 | 2.87E+04 |
| Phenolic Compounds (non-chlorinated) | lbs/day | ~~5.98E~~8.38E+02 | -- | ~~2.40E~~3.36E+03 | ~~5.98E~~8.38E+03 |
| Chlorinated Phenolics | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Chlorinated Phenolics | lbs/day | ~~1.99E~~2.79E+01 | -- | ~~7.96E+01~~1.12E+02 | ~~1.99E~~2.79E+02 |
| Endosulfan | µg/L | 8.60E-01 | -- | 1.72E+00 | 2.58E+00 |
| Endosulfan | lbs/day | ~~1.79E-~~2.51E-01 | -- | ~~3.59E~~5.02E-01 | ~~5.38E~~7.54E-01 |
| Endrin | µg/L | 1.91E-01 | -- | 3.82E-01 | 5.74E-01 |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Endrin | lbs/day | ~~3.98E~~5.58E-02 | -- | ~~7.96E-02~~1.12E-01 | 1.~~20E~~68E-01 |
| HCH (BHC) | µg/L | 3.82E-01 | -- | 7.65E-01 | 1.15E+00 |
| HCH (BHC) | lbs/day | ~~7.96E~~1.12E-0~~2~~ | -- | ~~1.60E~~2.23E-01 | ~~2.40E~~3.36E-01 |
| Radioactivity (alpha and beta particles) [6] | Picocuries per liter (pCi/L) | -- | -- | -- | -- |
| Acrolein | µg/L | -- | 2.10E+04 | -- | -- |
| Acrolein | lbs/day | -- | ~~4.38E~~6.13E+03 | -- | -- |
| Antimony | µg/L | -- | 1.10E+05 | -- | -- |
| Antimony | lbs/day | -- | ~~2.29E~~3.21E+04 | -- | -- |
| Bis(2-chloroethoxy) Methane | µg/L | -- | 4.20E+02 | -- | -- |
| Bis(2-chloroethoxy) Methane | lbs/day | -- | ~~8.76E+01~~1.23E+02 | -- | -- |
| Bis(2-chloroisopropyl) Ether | µg/L | -- | 1.10E+05 | -- | -- |
| Bis(2-chloroisopropyl) Ether | lbs/day | -- | ~~2.29E~~3.21E+04 | -- | -- |
| Chlorobenzene | µg/L | -- | 5.40E+04 | -- | -- |
| Chlorobenzene | lbs/day | -- | 1.~~13E~~58E+04 | -- | -- |
| Chromium (III), Total Recoverable | µg/L | -- | 1.80E+07 | -- | -- |
| Chromium (III), Total Recoverable | lbs/day | -- | ~~3.75E~~5.26E+06 | -- | -- |
| Di-n-butyl Phthalate | µg/L | -- | 3.30E+05 | -- | -- |
| Di-n-butyl Phthalate | lbs/day | -- | ~~6.88E~~9.64E+04 | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Dichlorobenzenes | µg/L | -- | 4.90E+05 | -- | -- |
| Dichlorobenzenes | lbs/day | -- | 1.~~02E~~43E+05 | -- | -- |
| Diethyl Phthalate | µg/L | -- | 3.20E+06 | -- | -- |
| Diethyl Phthalate | lbs/day | -- | ~~6.67E~~9.35E+05 | -- | -- |
| Dimethyl Phthalate | µg/L | -- | 7.80E+07 | -- | -- |
| Dimethyl Phthalate | lbs/day | -- | ~~1.63E~~2.28E+07 | -- | -- |
| 4,6-dinitro-2-methylphenol | µg/L | -- | 2.10E+04 | -- | -- |
| 4,6-dinitro-2-methylphenol | lbs/day | -- | ~~4.38E~~6.13E+03 | -- | -- |
| 2,4-dinitrophenol | µg/L | -- | 3.80E+02 | -- | -- |
| 2,4-dinitrophenol | lbs/day | -- | ~~7.92E+01~~1.11E+02 | -- | -- |
| Ethylbenzene | µg/L | -- | 3.90E+05 | -- | -- |
| Ethylbenzene | lbs/day | -- | ~~8.13E+04~~1.14E+05 | -- | -- |
| Fluoranthene | µg/L | -- | 1.40E+03 | -- | -- |
| Fluoranthene | lbs/day | -- | ~~2.92E~~4.09E+02 | -- | -- |
| Hexachlorocyclopentadiene | µg/L | -- | 5.50E+03 | -- | -- |
| Hexachlorocyclopentadiene | lbs/day | -- | 1.~~15E~~61E+03 | -- | -- |
| Nitrobenzene | µg/L | -- | 4.70E+02 | -- | -- |
| Nitrobenzene | lbs/day | -- | ~~9.80E+01~~1.37E+02 | -- | -- |
| Thallium, Total Recoverable | µg/L | -- | 1.90E+02 | -- | -- |
| Thallium, Total Recoverable | lbs/day | -- | ~~3.96E~~5.55E+01 | -- | -- |
| Toluene | µg/L | -- | 8.10E+06 | -- | -- |
| Toluene | lbs/day | -- | ~~1.69E~~2.37E+06 | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Tributyltin | µg/L | -- | 1.30E-01 | -- | -- |
| Tributyltin | lbs/day | -- | ~~2.71E~~3.80E-02 | -- | -- |
| 1,1,1-trichloroethane | µg/L | -- | 5.20E+07 | -- | -- |
| 1,1,1-trichloroethane | lbs/day | -- | 1.~~08E~~52E+07 | -- | -- |
| Acrylonitrile | µg/L | -- | 9.60E+00 | -- | -- |
| Acrylonitrile | lbs/day | -- | 2.~~00E~~80E+00 | -- | -- |
| Aldrin | µg/L | -- | 2.10E-03 | -- | -- |
| Aldrin | lbs/day | -- | ~~4.38E~~6.13E-04 | -- | -- |
| Benzene | µg/L | -- | 5.60E+02 | -- | -- |
| Benzene | lbs/day | -- | 1.~~17E~~64E+02 | -- | -- |
| Beryllium, Total Recoverable | µg/L | -- | 3.20E+00 | -- | -- |
| Beryllium, Total Recoverable | lbs/day | -- | ~~6.67E-~~9.35E-01 | -- | -- |
| Bis(2-chloroethyl) Ether | µg/L | -- | 4.30E+00 | -- | -- |
| Bis(2-chloroethyl) Ether | lbs/day | -- | ~~8.97E-01~~1.26E+00 | -- | -- |
| Bis(2-ethlyhexyl) Phthalate | µg/L | -- | 3.30E+02 | -- | -- |
| Bis(2-ethlyhexyl) Phthalate | lbs/day | -- | ~~6.88E~~9.64E+01 | -- | -- |
| Carbon Tetrachloride | µg/L | -- | 8.60E+01 | -- | -- |
| Carbon Tetrachloride | lbs/day | -- | ~~1.79E~~2.51E+01 | -- | -- |
| Chlorodibromomethane | µg/L | -- | 8.20E+02 | -- | -- |
| Chlorodibromomethane | lbs/day | -- | ~~1.71E~~2.40E+02 | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Chloroform | µg/L | -- | 1.20E+04 | -- | -- |
| Chloroform | lbs/day | -- | ~~2.50E~~3.51E+03 | -- | -- |
| 1,4-dichlorobenzene | µg/L | -- | 1.70E+03 | -- | -- |
| 1,4-dichlorobenzene | lbs/day | -- | ~~3.54E~~4.97E+02 | -- | -- |
| 3,3'-dichlorobenzidine | µg/L | -- | 7.70E-01 | -- | -- |
| 3,3'-dichlorobenzidine | lbs/day | -- | ~~1.61E~~2.25E-01 | -- | -- |
| 1,2-dichloroethane | µg/L | -- | 2.70E+03 | -- | -- |
| 1,2-dichloroethane | lbs/day | -- | ~~5.63E~~7.89E+02 | -- | -- |
| 1,1-dichloroethylene | µg/L | -- | 8.60E+01 | -- | -- |
| 1,1-dichloroethylene | lbs/day | -- | ~~1.79E~~2.51E+01 | -- | -- |
| Dichlorobromomethane | µg/L | -- | 5.90E+02 | -- | -- |
| Dichlorobromomethane | lbs/day | -- | 1.~~23E~~72E+02 | -- | -- |
| Dichloromethane | µg/L | -- | 4.30E+04 | -- | -- |
| Dichloromethane | lbs/day | -- | ~~8.97E+03~~1.26E+04 | -- | -- |
| 1,3-dichloropropene | µg/L | -- | 8.50E+02 | -- | -- |
| 1,3-dichloropropene | lbs/day | -- | ~~1.77E~~2.48E+02 | -- | -- |
| Dieldrin | µg/L | -- | 3.80E-03 | -- | -- |
| Dieldrin | lbs/day | -- | ~~7.92E-04~~1.11E-03 | -- | -- |
| 2,4-dinitrotoluene | µg/L | -- | 2.50E+02 | -- | -- |
| 2,4-dinitrotoluene | lbs/day | -- | ~~5.21E~~7.30E+01 | -- | -- |
| 1,2-diphenylhydrazine | µg/L | -- | 1.50E+01 | -- | -- |
| 1,2-diphenylhydrazine | lbs/day | -- | ~~3.13E~~4.38E+00 | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Halomethanes | µg/L | -- | 1.20E+04 | -- | -- |
| Halomethanes | lbs/day | -- | ~~2.50E~~3.51E+03 | -- | -- |
| Heptachlor | µg/L | -- | 4.80E-03 | -- | -- |
| Heptachlor | lbs/day | -- | 1.~~00E-~~40E-03 | -- | -- |
| Hexachlorobutadiene | µg/L | -- | 1.30E+03 | -- | -- |
| Hexachlorobutadiene | lbs/day | -- | ~~2.71E~~3.80E+02 | -- | -- |
| Hexachloroethane | µg/L | -- | 2.40E+02 | -- | -- |
| Hexachloroethane | lbs/day | -- | ~~5.00E~~7.01E+01 | -- | -- |
| Isophorone | µg/L | -- | 7.00E+04 | -- | -- |
| Isophorone | lbs/day | -- | ~~1.46E~~2.04E+04 | -- | -- |
| N-nitrosodimethylamine | µg/L | -- | 7.00E+02 | -- | -- |
| N-nitrosodimethylamine | lbs/day | -- | ~~1.46E~~2.04E+02 | -- | -- |
| N-nitrosodi-N-propylamine | µg/L | -- | 3.60E+01 | -- | -- |
| N-nitrosodi-N-propylamine | lbs/day | -- | ~~7.51E+00~~1.05E+01 | -- | -- |
| N-nitrosodiphenylamine | µg/L | -- | 2.40E+02 | -- | -- |
| N-nitrosodiphenylamine | lbs/day | -- | ~~5.00E~~7.01E+01 | -- | -- |
| Polyaromatic Hydrocarbons (PAHs) | µg/L | -- | 8.40E-01 | -- | -- |

| Parameter [1][2] | Units [3] | Six-Month Median | Monthly Average | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| (PAHs) | lbs/day | -- | ~~1.75E~~2.45E-01 | -- | -- |
| 1,1,2,2-tetrachloroethane | µg/L | -- | 2.20E+02 | -- | -- |
| 1,1,2,2-tetrachloroethane | lbs/day | -- | ~~4.59E~~6.43E+01 | -- | -- |
| Tetrachloroethylene | µg/L | -- | 1.90E+02 | -- | -- |
| Tetrachloroethylene | lbs/day | -- | ~~3.96E~~5.55E+01 | -- | -- |
| Trichloroethylene | µg/L | -- | 2.60E+03 | -- | -- |
| Trichloroethylene | lbs/day | -- | ~~5.42E~~7.59E+02 | -- | -- |
| 1,1,2-trichloroethane | µg/L | -- | 9.00E+02 | -- | -- |
| 1,1,2-trichloroethane | lbs/day | -- | ~~1.88E~~2.63E+02 | -- | -- |
| 2,4,6-trichlorophenol | µg/L | -- | 2.80E+01 | -- | -- |
| 2,4,6-trichlorophenol | lbs/day | -- | ~~5.84E~~8.18E+00 | -- | -- |
| Vinyl Chloride | µg/L | -- | 3.40E+03 | -- | -- |
| Vinyl Chloride | lbs/day | -- | ~~7.09E~~9.93E+02 | -- | -- |

Notes for Table 3

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

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents $6.1 \times 10^{-2}$ or 0.061, 6.1E+02 represents $6.1 \times 10^{2}$ or 610, and 6.1E+00 represents $6.1 \times 10^{0}$ or 6.1.

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the Facility (~~25~~35.0 MGD) and C is the concentration (mg/L).

[4] The Discharger may, at their option, apply this performance goal as a total chromium performance goal.

[5] If the Discharger can demonstrate to the satisfaction of the San Diego Water Board (subject to approval of an alternative test procedure (ATP) by USEPA) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, performance goals may be evaluated with the combined measurement of free cyanide, simple alkali metals cyanides, and weakly complexed organometallic cyanide complexes. For the analytical method to be acceptable, the recovery of free cyanide from metal complexes shall be comparable to that achieved by the approved method in 40 CFR part 136, as revised May 14, 1999.

[6] Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCRs. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

### 4.1.3. Discharge Specifications

4.1.3.1. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.

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

4.1.3.2.1. Material that is floatable or will become floatable upon discharge;

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

4.1.3.2.3. Substances which will accumulate to toxic levels in marine waters, sediments, or biota;

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

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

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

4.1.3.4. Location of waste discharges must be determined after a detailed assessment of the oceanographic characteristics and current patterns to assure that:

4.1.3.4.1. Pathogenic organisms and viruses are not present in areas where shellfish are harvested for human consumption or in areas used for swimming or other body-contact sports;

4.1.3.4.2. Natural water quality conditions are not altered in areas designated as being of special biological significance or areas that existing marine laboratories use as a source of seawater; and

4.1.3.4.3. Maximum protection is provided to the marine environment.

4.1.3.5. Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from shellfishing and water-contact sports areas to maintain

applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used.

### 4.2. Land Discharge Specifications – Not Applicable

### 4.3. Recycling Specifications – Not Applicable

## 5. Receiving Water Limitations

### 5.1. Surface Water Limitation

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

#### 5.1.1. Bacterial Characteristics

5.1.1.1. Within a zone bounded by the shoreline and a distance of three nautical miles from the shoreline, including all kelp beds, the following bacterial objectives shall be maintained throughout the water column;

5.1.1.1.1. Fecal Coliform

5.1.1.1.1.1. A thirty-day geometric mean of fecal coliform density not to exceed 200 CFU per 100 milliliters (mL) calculated based on the five most recent samples from each site, and

5.1.1.1.1.2. A single sample maximum not to exceed 400 CFU per 100 mL.

5.1.1.1.2. Enterococci

5.1.1.1.2.1. A six-week rolling geometric mean not to exceed 30 CFU per 100 mL, calculated weekly, and

5.1.1.1.2.2. A statistical threshold value of 110 CFU per 100 mL not to be exceeded by more than 10 percent of samples collected in a calendar month, calculated in a static manner.

5.1.1.2. The ZID of any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

5.1.1.3. At all areas where shellfish may be harvested for human consumption, as determined by the San Diego Water Board, the median total coliform density (CFU)

shall not exceed 70 per 100 ml throughout the water column, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

### 5.1.2. Physical Characteristics

5.1.2.1. Floating particulates and grease and oils shall not be visible.

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

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

5.1.2.4. The rate of deposition of inert solids and the characteristics of inert solids in the ocean sediments shall not be changed such that benthic communities are degraded.

5.1.2.5. Trash shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

### 5.1.3. Chemical Characteristics

5.1.3.1. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

5.1.3.2. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

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

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

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

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

5.1.3.7. Numerical water quality objectives established in chapter II, Table 3 of the Ocean Plan shall not be exceeded. Unless otherwise specified, all metal concentrations are expressed as total recoverable concentrations.

### 5.1.4. Biological Characteristics

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

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

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

**5.1.5. Radioactivity**

Discharge of radioactive waste shall not degrade marine life.

**5.2. Groundwater Limitations – Not Applicable**

**6. Provisions**

**6.1. Standard Provisions**

**6.1.1. Federal Standard Provisions**

The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

**6.1.2. 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.

6.1.2.1. The Facility shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23, division 3, chapter 26 of the CCR. The Facility shall be provided with a sufficient number of qualified personnel to operate it effectively so as to achieve the required level of treatment at all times.

6.1.2.2. The expiration date of this Order is contained on page 1 of this Order. After the expiration date, the terms and conditions of this Order are automatically continued pending issuance of a new permit, provided that all requirements of USEPA's NPDES regulations at title 40 of the Code of Federal Regulations (40 CFR) section 122.6 and the State's regulations at title 23, division 3, chapter 9, article 3, section 2235.4 of the CCR regarding the continuation of expired permits and WDRs are met.

6.1.2.3. The Discharger shall maintain a copy of this Order at a prominent location either in hard copy or electronic format. The Order shall be available to site personnel, San Diego Water Board, State Water Resources Control Board (State Water Board), and USEPA or their authorized representative at all times.

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

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

**6.2.2.** 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
Facsimile – (619) 516-1994

## 6.3. Special Provisions

### 6.3.1. Reopener Provisions

6.3.1.1. 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 4.1.2, Table 3, of this Order or as otherwise described in Table 3 of the Ocean Plan. (40 CFR section 122.44(d)(1))

6.3.1.2. 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).

6.3.1.3. 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:

6.3.1.3.1. Violation of any terms or conditions of this Order. (Water Code section 13381(a));

6.3.1.3.2. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts. (Water Code section 13381(b)); and

6.3.1.3.3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. (Water Code section 13381(c)).

6.3.1.4. 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 of this Order, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order. (40 CFR section 122.41(f))

6.3.1.5. 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))

6.3.1.6. 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).)

6.3.1.7. 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))

6.3.1.8. 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))

6.3.1.9. This Order may 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.

6.3.1.10. The performance goals, contained in section 4.1.2. of this Order, may be re-evaluated and modified during this Order term, or this Order may be modified to incorporate WQBELs, in accordance with the requirements set forth at 40 CFR sections 122.62 and 124.5.

6.3.1.11. This Order may be reopened and modified to provide for diversion of transboundary flows from the Tijuana River to the Facility for storage, treatment, and conveyance to the South Bay Ocean Outfall for discharge to the Pacific Ocean in accordance with the provisions of 40 CFR section 122.62.

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

6.3.2.1. **Spill and Transboundary Flow Event Types, and Flow Prevention and Response Plan**

6.3.2.1.1. **Event Types**

Spill and transboundary flow event types are defined and categorized as set forth below. Event types do not include discharges to the Pacific Ocean at Discharge Point No. 001, discharges of waste from the Facility specifically regulated by this Order, or discharges determined by the San Diego Water Board to be sufficiently regulated by other waste discharge requirements or waivers thereof. "Transboundary Flow Event" is a phrase defined in Attachment A of this Order and includes but is not limited to all Canyon Collector Transboundary Flow Events, Other Canyon Transboundary Flow Events, and Tijuana River Transboundary Flow Events.

6.3.2.1.1.1. **Spill Event**

A Spill Event is a discharge, or any other type of emission or release, of waste from any portion of the Facility due to system overflow, flow stoppage, system leaks and breaks, operational failure and/or infrastructure failure. Discharges excluded from this definition are described in Attachment F of this Order in section 6.2.2.1.4 of the Fact Sheet.

6.3.2.1.1.2. **Canyon Collector Transboundary Flow Event**

A Canyon Collector Transboundary Flow Event is any flow across the U.S.–Mexico international border under dry or wet weather conditions to any one of

the five canyons equipped with a canyon collector system, including Smuggler's Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain, or Silva Drain, that is not captured by the canyon collector system for treatment at the SBIWTP and disposal through the SBOO. A dry weather Canyon Collector Transboundary Flow Event also constitutes a Spill Event when transboundary flows less than or equal to the canyon collector's maximum design capacity is not captured by the canyon collector for treatment at the SBWITP and disposal through the SBOO (i.e., dry weather canyon collector Spill Event). See section 2.1 of the Fact Sheet (Attachment F) for additional information on the maximum design capacity of the canyon collector systems.

6.3.2.1.1.3. **Other Canyon Transboundary Flow Event**

An Other Canyon Transboundary Flow Event is any flow across the U.S.–Mexico international border, under dry or wet weather conditions, at any transboundary canyon in the Tijuana River Valley that is not equipped with a canyon collector system, including but not limited to Yogurt Canyon.

6.3.2.1.1.4. **Tijuana River Transboundary Flow Event**

A Tijuana River Transboundary Flow Event is any flow across the U.S.– Mexico international border, under dry or wet weather conditions, in the Tijuana River.

6.3.2.1.2. **Spill and Transboundary Flow Event Prevention and Response Plan**

The Discharger shall prepare and submit an updated Spill and Transboundary Flow Event Prevention and Response Plan (Flow Prevention/Response Plan) for approval by the San Diego Water Board no later than 180 days after the effective date of this Order. The updated Flow Prevention/Response Plan shall be developed in consultation with interested stakeholders. For purposes of the Flow Prevention/Response Plan, interested stakeholders may include, but are not limited to, the San Diego Water Board, the County of San Diego Department of Environmental Health (DEH), non-governmental organizations (NGOs), or international partners, such as the Comisión International de Limites y Aguas (CILA, the Mexican Section of the IBWC). The Flow Prevention/Response Plan shall address each event type identified above, in section 6.3.2.1.1 of this Order in conformance with the following elements and informational requirements:

6.3.2.1.2.1. **Goal.** The Flow Prevention/Response Plan shall provide for the following:

6.3.2.1.2.1.1. The reduction, elimination and prevention of the recurrence of Spill and Transboundary Flow Events;

6.3.2.1.2.1.2. The protection of public health and safety; and

6.3.2.1.2.1.3. The prevention of adverse impacts to the environment from Spill and Transboundary Flow Events, including but not limited to, adverse impacts to waters of the U.S. and/or State.

6.3.2.1.2.2. **Desired Outcomes.** The Flow Prevention/Response Plan shall include specific provisions adequate to achieve the following desired outcomes:

6.3.2.1.2.2.1. The provisions shall provide for prompt notification and reporting of Spill Events and Tijuana River Transboundary Flow Events to appropriate regulatory agencies, municipalities, and other potentially affected entities;

6.3.2.1.2.2.2. The provisions shall provide effective measures for implementation to prevent, reduce, and eliminate Spill and dry weather Canyon Collector Transboundary Flow Events;

6.3.2.1.2.2.3. The provisions shall provide effective remedial measures for implementation to 1) control or limit Spill Events, 2) terminate Spill Events, and 3) recover as much of Spill volume as possible for proper disposal, including any wash down water; and

6.3.2.1.2.2.4. The provisions shall provide a framework for achieving and implementing the goals and desired outcomes of the Flow Prevention/Response Plan by the Discharger. The framework for achieving and implementing the goals and desired outcomes of the Flow Prevention/Response Plan may include binational actions and cooperation with international partners, including CILA, Secretaría de Protección al Ambiente (SPA), Comisión Estatal de Servicios Públicos de Tijuana (CESPT), Procuraduría Federal de Protección al Ambiente (PROFEPA), Comisión Nacional del Agua (CONAGUA), and the City of Tijuana's Secretaría de Desarrollo Urbano y Ecología (SDUE), and NGOs.

6.3.2.1.2.3. **Roles and Responsibilities.** The Flow Prevention/Response Plan shall:

6.3.2.1.2.3.1. Identify the duly authorized individual(s) or position(s) having overall responsibility for the development and implementation of the Flow Prevention/Response Plan on behalf of the Discharger as described in Attachment D of this Order, Standard Provisions, section 5.2;

6.3.2.1.2.3.2. Identify the names of all key individuals, associated position titles, email addresses and telephone numbers, including management, administrative, contractor, and maintenance positions, responsible for implementing specific measures described in the Flow Prevention/Response Plan, on behalf of the Discharger;

6.3.2.1.2.3.3. Provide a complete description of the roles and responsibilities and lines of authority for implementation of the Flow Prevention/Response Plan with respect to the Discharger and appropriate interested stakeholders, including organization chart(s) or similar document(s). If the Discharger is unable to provide a complete description of the roles and responsibilities and lines of authority for implementation of the Flow Prevention/Response Plan, the Discharger shall explain the reason in its Flow Prevention/Response Plan.

6.3.2.1.2.4. **Communication and Coordination with Interested Stakeholders.** The Flow Prevention/Response Plan shall document the framework and procedures for coordination between the Discharger and interested stakeholders through regular meetings and written or oral communication to:

6.3.2.1.2.4.1. Develop procedures for reducing, eliminating, and preventing recurrence of Spill Events resulting from an emergency or unanticipated outages of wastewater infrastructure;

6.3.2.1.2.4.2. Develop emergency response and notification procedures for loss of wastewater infrastructure capacity;

6.3.2.1.2.4.3. Review existing plans, specifications, and reports of key wastewater infrastructure;

6.3.2.1.2.4.4. To the extent requested by interested stakeholders, assist interested stakeholders in preventing, reducing, terminating, and recovering transboundary flows;

6.3.2.1.2.4.5. Provide a framework for actions and cooperation in achieving the goals and desired outcomes of the Flow Prevention/Response Plan; and

6.3.2.1.2.4.6. Optimize use of available wastewater infrastructure capacity to achieve the goals and desired outcomes of the Flow Prevention/Response Plan. This topic may include, but is not limited to, increases in available sewage collection and treatment capacity, increases in wastewater flow diversion to the SBIWTP, reserve as much capacity of the treatment works as possible for untreated Tijuana sewage, and communication with interested stakeholders.

6.3.2.1.2.5. **Inspection and Preventative Maintenance Program.** The Flow Prevention/Response Plan shall provide a program for routine inspection and preventative maintenance of the entire wastewater system that is owned and operated by the Discharger, including, but not limited to, backup power and electrical systems. The inspection and preventative maintenance program shall include the following components:

6.3.2.1.2.5.1. Map, Flow Diagrams, and Design Capacity Documentation. The Flow Prevention/Response Plan shall provide an accurate map and flow diagram, and the design capacity for each key component of the Discharger's entire wastewater system. The information shall address key pipes, force mains, pump stations, treatment plant capacities, and all discharge point(s).

6.3.2.1.2.5.2. Inspection and Preventative Maintenance Program. The Flow Prevention/Response Plan shall provide a description of the routine inspection and preventative maintenance program for the Discharger's wastewater system. The description shall include schedules, protocols, documentation procedures, and associated activities for inspection, preventative maintenance, and cleaning. The documentation procedures shall include the system used to document the inspection and preventive maintenance activities, such as work orders. The Flow Prevention/Response Plan shall include exercising and testing of all key systems and components to verify adequate operation of the system and associated backup alarms.

Each canyon collector system shall be inspected daily.

The Flow Prevention/Response Plan shall provide for daily inspections of each canyon collector system and maintenance of a written log describing 1) the date, time, location and duration of the inspection, 2) the name of person(s) that conducted the inspection, 3) visual observations and photos of sediment and trash accumulation in the canyon collector basin, 4) any steps taken to remove accumulated sediment and trash, including estimates of the volume removed and how it was disposed, and 5) the condition of the canyon collector after maintenance, including if any sediment or trash was not able to be removed. The logs shall be submitted to the San Diego Water Board monthly as part of the monthly self-monitoring reports (SMRs). The Flow Prevention/Response Plan shall also provide a description of the specific circumstances, mechanisms, and frequency of occurrence whereby the hydraulic capacity of the canyon collector system is reduced below its maximum design capacity from stoppage, blockage, debris obstructions, vandalism or other causes that impact or limit the flow of wastewater into the canyon collector systems and to the treatment plant. The Flow Prevention/Response Plan shall identify the best practices and procedures employed by the Discharger to reduce, prevent, or eliminate the severity and impact of reductions in canyon collector capacity and to restore the system's functional capacity to handle Canyon Collector Transboundary Flow Events at the maximum design capacity flow rate as quickly as possible. These practices and procedures shall also address the steps taken or planned to ensure adequate clearing and removal of accumulated sand/silt and blockages and correction of all capacity deficiencies in the canyon collector systems within 96 hours following a storm event of 0.1 inches or greater (i.e., 24 hours after wet weather, as the term wet weather is defined in Attachment A of this Order).

6.3.2.1.2.5.3. Replacement Components. The Flow Prevention/Response Plan shall describe practices for identifying key replacement components and maintaining an adequate inventory of critical replacement components.

6.3.2.1.2.6. **Rehabilitation and Replacement.** The Flow Prevention/Response Plan shall describe a rehabilitation and replacement program to detect, identify, and address any structural deficiencies, or other system devices or components that have caused or are likely to cause spills from the Facility. Structural deficiencies include, but are not limited to, major pipe breaks and cracks, inadequate pipe slopes, internal corrosion areas, areas of significant root intrusion, and inadequate hydraulic capacity. The rehabilitation and replacement program shall provide for identification, ranking, and prioritizing of system deficiencies and implementation of short-term and long-term rehabilitation or replacement actions to address each identified deficiency. Rehabilitation and replacement activities should focus on infrastructure that is older and at risk or prone to more frequent blockage due to sediment or debris. The Flow Prevention/Response Plan shall also describe a capital improvement program which manages and preserves infrastructure assets, identifies and ranks infrastructure rehabilitation and replacement capital projects, provides a planning and implementation schedule,

and identifies options for obtaining the funding needed to implement the program.

6.3.2.1.2.7. **Training.** The Flow Prevention/Response Plan shall describe a program for providing training to ensure that the Discharger's employees, contractors, and other representatives are adequately trained and possess adequate knowledge, skills, and abilities to implement the Flow Prevention/Response Plan.

6.3.2.1.2.8. **Spill Event Containment and Cleanup**

This section of the Flow Prevention/Response Plan shall apply to Spill Events. The Discharger may also apply this section of the Flow Prevention/Response Plan to dry weather Canyon Collector Transboundary Flow Events in excess of their design capacity and Other Canyon Transboundary Flow Events. The San Diego Water Board recommends, requests, and encourages the Discharger to apply this section of the Flow Prevention/Response Plan to dry weather Canyon Collector Transboundary Flow Events in excess of their design capacity and Other Canyon Transboundary Flow Events as much as reasonably possible to protect water quality and beneficial uses.

The Flow Prevention/Response Plan shall describe guidelines and procedures for taking all feasible steps and necessary remedial actions to 1) control or limit Spill Event volume, 2) terminate Spill Events, and 3) recover as much of the Spill Event volume as possible for proper disposal, including any wash down water. The Flow Prevention/Response Plan shall incorporate the following components:

6.3.2.1.2.8.1. **Investigation and Assessment**. The Flow Prevention/Response Plan shall describe procedures for Spill Event investigation and assessment including volume estimation, adequate monitoring to determine the nature and impact of the event, identification of receiving waters impacted, calls for additional backup support, and notification of appropriate agencies as required under section 6.3.2.4 of this Order. Investigation and assessment shall be conducted for all dry weather Canyon Collector Transboundary Flow Events to allow the San Diego Water Board to assess whether those flows are within or exceed the canyon collector's design capacity.

6.3.2.1.2.8.2. **Containment.** The Flow Prevention/Response Plan shall describe procedures for containment of the Spill Event volume, including but not limited to the following actions:

- Use of sandbags or containment barriers;
- Containment in downstream storm drains and plugging downstream storm drain outlets to capture the Spill Event flow, if possible; and
- Excavation as necessary and where possible to establish containment of the Spill Event.

6.3.2.1.2.8.3. **Cleanup.** The Flow Prevention/Response Plan shall describe procedures for the mitigation and/or cleanup of the Spill Events, including but not limited to the following actions:

- Collection of solid and liquid waste material and other debris;
- Vacuum truck recovery of wastewater or polluted water and wash down water;
- Cleanup of debris within the affected area(s); and
- Cleanup of any impacted storm drains.

6.3.2.1.2.9. **Notifications and Reporting of Spill Events and Transboundary Flow Events.** This section of the Flow Prevention/Response Plan shall apply to Spill Events, Tijuana River Transboundary Flow Events and dry weather Canyon Collector Transboundary Flow Events. The Discharger is encouraged to apply this section of the Flow Prevention/Response Plan to Other Canyon Transboundary Flow Events to the extent they become aware of them. The Flow Prevention/Response Plan shall describe procedures for prompt notification and reporting of Spill Events, Tijuana River Transboundary Flow Events, and dry weather Canyon Collector Transboundary Flow Events to appropriate parties as described in section 6.3.2.3 of this Order. The Flow Prevention/Response Plan shall provide for maintenance of a regularly updated notification and reporting contact list (emails and phone numbers) and adequate public notification to protect the public from exposure to Spill Events, Tijuana River Transboundary Flow Events, and dry weather Canyon Collector Transboundary Flow Events. Adequate notification is satisfied with an email or other written notification to the reporting contact list. Written notifications and reports should be provided to appropriate regulatory agencies, municipalities, and other potentially affected entities to the extent required by this Order, other permits and licenses, State and federal laws, local ordinances or as otherwise described in the Flow Prevention/Response Plan. These organizations shall include, but are not be limited to:

- California Governor's Office of Emergency Services (Cal OES);
- San Diego County ~~DEH~~DEHQ;
- San Diego Water Board;
- California Department of Fish and Wildlife;
- U.S. Fish and Wildlife Service;
- City of Chula Vista;
- City of Coronado;
- City of Imperial Beach;
- City of National City;
- City of San Diego;
- USEPA;
- Local water agencies if a water supply has been affected;
- Interested NGOs; and
- Other interested stakeholders.

6.3.2.1.2.10. **Documentation.** The Flow Prevention/Response Plan shall include procedures for documentation of each Spill Event, Tijuana River Transboundary Flow Event, and dry weather Canyon Collector Transboundary Flow Event as required under

section 6.3.2.4 of this Order including, but not limited to, a description of the event and its cause; exact dates and times for when the event started, when the Discharger responded, when the event stopped, when containment and cleanup occurred, the volume recovered, the volume released to the environment, notifications made, and the steps taken or planned to mitigate and prevent recurrence of the event.

6.3.2.1.2.11. **Identification and Maintenance of Equipment to Respond to Spills and Transboundary Flow Events.** The Flow Prevention/Response Plan shall identify essential equipment to be maintained in a state of operational readiness to respond to Spill Events, Tijuana River Transboundary Flow Events, and dry weather Canyon Collector Transboundary Flow Events. All equipment must be washed prior to transport to the event site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.

6.3.2.1.3. **Flow Prevention/Response Plan Implementation.** The San Diego Water Board will release the updated Flow Prevention/Response Plan for public review and comment for a minimum of 30 days. The Discharger must consider revisions to the Flow Prevention/Response Plan based on written comments received during the comment period. The Discharger must submit a revised Flow Prevention/Response Plan, with responses to written comments received, to the San Diego Water Board no later than 60 days after the close of the comment period. The Discharger shall commence with implementation of the Flow Prevention/Response Plan immediately upon submission of the revised Flow Prevention/Response Plan, unless otherwise directed in writing by the San Diego Water Board Executive Officer.

6.3.2.1.3.1. **Flow Prevention/Response Plan Amendment.** The Discharger shall conduct regular, on at least a biennial frequency, review and assessment of the Flow Prevention/Response Plan to identify improvements and modify it as necessary to reduce, eliminate, and prevent the recurrence of Spill and Transboundary Flow Events. The Discharger shall keep the Flow Prevention/Response Plan in an up-to-date condition and shall amend the Flow Prevention/Response Plan whenever there is a change (e.g., in the design, construction, operation, or maintenance of the Facility) which materially affects the potential for spill and/or transboundary flow events; or which materially affects the response required for each event. The Discharger shall upload amendments into CIWQS within 30 days of amending the Flow Prevention/Response Plan.

6.3.2.1.3.2. **Flow Prevention/Response Plan Posting.** The Discharger shall maintain a copy of the most current Flow Prevention/Response Plan either in electronic format or in hard copy at a prominent location at the Facility. The Flow Prevention/Response Plan shall be readily available to the Discharger's employees, contractors, and other representatives at all times. The Discharger

shall also post a publicly available internet accessible copy of the most current Flow Prevention/Response Plan on the Discharger's website.

6.3.2.2. **Sharing Transboundary Flow Information with Interested Stakeholders**

6.3.2.2.1. **Transboundary Flows Biannual Technical Committee Meetings**

The Discharger shall regularly share information regarding Spill Events, dry weather Canyon Collector Transboundary Flow Events and Tijuana River Transboundary Flow Events with interested stakeholders. To ensure that this information is regularly shared with interested stakeholders, the Discharger shall conduct Biannual Technical Committee (BTC) meetings, with simultaneous translation services, if needed, on flow and spill prevention and response in the Tijuana River Valley and canyons located along the international border.

6.3.2.2.1.1. The Discharger shall conduct the BTC meetings periodically but no less than two times per year (biannually). At least one of these meetings must be on the U.S. side of the border. The goal of the BTC meetings is to bring together governmental, regulatory, and funding agencies, along with the environmental community and other stakeholders in pursuit of partnerships and collaboration towards achieving meaningful reductions in transboundary flows and associated water quality issues in the Tijuana River Valley. The Discharger shall invite interested stakeholders to the BTC meetings. The interested stakeholders shall consist of a diverse group of individuals or entities to provide technical input on the international issue of Transboundary Flow Event prevention and response. For purposes of this section and the BTC meetings, interested stakeholders may include, but are not limited to, the San Diego Water Board, USEPA, the County of San Diego, the City of San Diego, the City of Imperial Beach, California Department of Parks and Recreation, U.S. Fish and Wildlife, California Department of Fish and Wildlife, NGOs (e.g., Tijuana-based Tijuana Calidad de Vida and Proyecto Fronterizo de Educación Ambiental, WILDCOAST, Surfrider Foundation San Diego, and San Diego Coastkeeper), or international partners, such as CILA, SPA, CESPT, PROFEPA, CONAGUA, and SDUE. To allow for meaningful participation, notice of the BTC meetings shall be given to interested stakeholders at least two weeks prior to the scheduled meeting date.

6.3.2.2.1.2. The Discharger shall prepare an agenda with input from invited stakeholders and shall prepare a meeting summary after the meeting and distribute it to all invited stakeholders.

6.3.2.2.1.3. The Discharger shall upload the agenda and meeting summary to CIWQS within 30 days after the meeting.

6.3.2.2.1.4. The Discharger may combine BTC meetings for the transboundary flows with the BTC meetings for source control required in section 6.3.5.3.2 of this Order.

6.3.2.2.1.5. The Discharger shall promote collaborative approaches and discussion of interests that affect the Facility to guide efforts on actions to achieve meaningful reduction or elimination of spill or transboundary flows to the Tijuana River Valley as soon as possible, including but not limited to the following:

- Develop and improve prevention, response, and notification procedures for Spill and Transboundary Flow Events due to loss of wastewater infrastructure capacity or other problems;
- Review existing and proposed plans, specifications, and reports for key wastewater infrastructure;
- Assist interested stakeholders, as requested by these entities, in identifying, preventing, reducing, terminating, and recovering Spill or Transboundary Flow Events;
- Optimize use of available wastewater infrastructure capacity to reduce, eliminate, and prevent the recurrence of Spill or Transboundary Flow Events. This topic may include, but are not limited to, increases in available sewage collection and treatment capacity and increases in wastewater flow diversion;
- Share and discuss the current version of the Flow Prevention/Response Plan;
- Share and discuss Tijuana River, transboundary canyons, and coastal water quality data, and discuss possible sources of contamination; and
- Develop and improve actions and cooperation with interested stakeholders in achieving the goals and desired outcomes of the Flow Prevention/Response Plan.

6.3.2.2.1.6. The Discharger shall share the Flow Prevention/Response Plan at each BTC meeting and answer any questions from interested stakeholders about its content and implementation.

6.3.2.2.2. Coordination with Interested Stakeholders

6.3.2.2.2.1 The Discharger shall partner with interested stakeholders to prevent, reduce, terminate, and recover dry weather Canyon Collector Transboundary Flow Events for the protection of downstream water quality and beneficial uses in the Tijuana River Valley and coastal waters. Efforts to achieve this goal may include, but are not limited to, engaging with NGOs to provide education on and encourage reduction of Transboundary Flow Events, pollution prevention, and best management practices; improving communication between the Discharger, CILA, SPA, and CESPT; and providing training, available funding, and other assistance to SPA and CESPT.

6.3.2.2.2.2 The Discharger shall notify the San Diego Water Board, by email, within 24 hours of becoming aware of any actions to turn on/off the CILA pump station and any reasons for such action, if known.

6.3.2.2.2.3. The Discharger should minimize the intake into the Facility of effluent from La Morita and Arturo Herrera Wastewater Treatment Plants located upstream on the Tijuana River in Mexico and City of Tijuana stormwater flows. This allows the maximum use of the Facility capacity to treat untreated sewage from Tijuana, Mexico. The San Diego Water Board requests the Discharger include a summary of this effort in the its annual presentation to the San Diego Water Board, required under section 6.3.2.2.5 of this Order.

6.3.2.2.2.4 The Discharger should coordinate quarterly binational inspections of the Tijuana River and canyons with appropriate interested stakeholders to estimate the amount of raw sewage entering the Tijuana River and canyons and to identify remedial actions to reduce, eliminate, and prevent Transboundary Flows Events. Reports detailing the inspections and remedial actions identified/taken should be submitted to the San Diego Water Board. The San Diego Water Board requests the Discharger include a summary of this effort in the annual presentation to the San Diego Water Board required under section 6.3.2.2.5 of this Order.

6.3.2.2.2.5 The Discharger should ask CILA for access to operating records, documenting flows, from PB-CILA, PB-1A, PB-1B, and the International Collector. The Discharger shall include a summary of this effort and any related findings regarding flows in the annual presentation to the San Diego Water Board required under section 6.3.2.2.5 of this Order.

6.3.2.2.3. [Intentionally omitted.]

6.3.2.2.4. **Sharing of Monthly SMRs with Interested Stakeholders.**

At the same time the SMRs are submitted to the San Diego Water Board, the Discharger shall share the monthly SMRs, including monthly transboundary flow event reports, with interested stakeholders.

6.3.2.2.5. **Annual Presentation to the San Diego Water Board**.

The Discharger shall present annual oral reports at San Diego Water Board meetings as requested to discuss Spill and Transboundary Flow Events. The Discharger shall prepare a technical presentation which clearly summarizes Spill and Transboundary Flow Events and compares the flows with the flows occurring during the previous year for the same time periods and year to date. The presentations shall include the information listed in section 4.2.5 of the MRP (Attachment E of this Order), as well as any other information on the circumstances and impacts of the Spill and Transboundary Flow Events and ways to improve the prevention of and response to the events. The Discharger may combine this presentation with the influent flow and source control requirements technical presentation required in section 6.3.5.3.2.4 of this Order.

6.3.2.3. **Spill and Transboundary Flow Event Notification and Reporting Requirements**

The Discharger shall report Spill Events and Transboundary Flow Events in accordance with the following procedures.

6.3.2.3.1. Spill Events, Tijuana River Transboundary Flow Events, and dry weather Canyon Collector Transboundary Flow Events, as defined in section 6.3.2.1.1 above, shall be categorized for notification and reporting purposes as follows, noting that Spill Events, Tijuana River Transboundary Flow Events or dry weather Canyon Collector Transboundary Flow Events may fall into more than one category. A Canyon Collector Transboundary Flow Event that begins in dry weather and continues during wet weather shall be treated as a dry weather Canyon Collector

Transboundary Flow Event for reporting purposes for the 24 hours following commencement of wet weather:

6.3.2.3.1.1. A Category 1 Event includes discharges that a) contain wastewater of any volume that reach surface water and/or reach a drainage channel tributary to a surface water or a municipal separate storm sewer system (MS4) and b) are not fully captured and either returned to the Facility or otherwise disposed of properly. Any volume not recovered from the MS4 is considered to have reached surface water unless the MS4 discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond). All dry weather Canyon Collector Transboundary Flow Events are considered Category 1 Events.

6.3.2.3.1.2. A Category 2 Event includes discharges that contain wastewater of 1,000 gallons or greater that do not reach surface water, a drainage channel, or a MS4.

6.3.2.3.1.3. A Category 3 Event includes all other discharges that contain wastewater.

6.3.2.3.1.4. A Category 4 Event includes discharges of hazardous substances.

6.3.2.3.1.5. A Category 5 Event includes discharges of oil or petroleum products.

6.3.2.3.1.6. A Category 6 Event includes discharges of other materials related to the Facility that may endanger health or the environment.

6.3.2.3.2. Within 2 hours of becoming aware of any Category 1 Event greater than or equal to 1,000 gallons, the Discharger shall notify the California Governor's Office of Emergency Services (Cal OES) and obtain a notification control number. The Discharger shall provide the following information to Cal OES before receiving a control number:

6.3.2.3.2.1. Name of person notifying Cal OES and direct return phone number.

6.3.2.3.2.2. Estimated Category 1 Event volume (gallons).

6.3.2.3.2.3. If ongoing, estimated Category 1 Event flow rate (gallons per minute).

6.3.2.3.2.4. Category 1 Event incident description including a brief narrative, on-scene point of contact for additional information (name and cell phone number); date and time Discharger became aware of the Category 1 Event; location of discharge; cause of the Category 1 Event (if known).

6.3.2.3.2.5. Indication of whether the Category 1 Event has been contained.

6.3.2.3.2.6. Indication of whether any surface waters were impacted.

6.3.2.3.2.7. Name of surface water impacted by the Category 1 Event, if applicable.

6.3.2.3.2.8. Indication of whether a drinking water supply is or may be impacted by the Category 1 Event.

6.3.2.3.2.9. Any other known Category 1 Event impacts.

6.3.2.3.2.10. Category 1 Event incident location (including address, city, state, and zip code).

Following the initial notification to Cal OES and until such time that the Discharger submits a certified report, the Discharger shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated wastewater discharged and any substantial change(s) to known impact(s).

6.3.2.3.3. For Category 1 and 2 Events, the Discharger shall submit a preliminary report within three business days of becoming aware of the Category 1 or 2 Event by email to the San Diego Water Board (RB9Spill_Report@waterboards.ca.gov), DEH, local municipalities, and other interested stakeholders. At a minimum, the following mandatory information shall be included in the preliminary report:

6.3.2.3.3.1. Discharger contact information for the person who can answer specific questions about the spill/flow being reported.

6.3.2.3.3.2. Category 1 or 2 Event location.

6.3.2.3.3.3. Global Positioning System (GPS) coordinates for the Category 1 or 2 Event location. If a single spill event results in multiple appearance points, provide GPS coordinates for each appearance point.

6.3.2.3.3.4. Whether or not the Category 1 or 2 Event reached surface water, a drainage channel, or entered and was discharged from a drainage structure.

6.3.2.3.3.5. Whether or not the Category 1 or 2 Event reached a MS4. If known, provide the name of the jurisdiction that owns or operates the MS4 and estimate the Category 1 or 2 Event volume that may have entered the MS4.

6.3.2.3.3.6. Whether or not the total Category 1 or 2 Event volume that reached a MS4 was fully recovered. If not, estimate the volume that was recovered from the MS4 (if applicable).

6.3.2.3.3.7. Estimate of the Category 1 or 2 Event volume, inclusive of all discharge point(s).

6.3.2.3.3.8. Estimate of the Category 1 or 2 Event volume that reached surface water, a drainage channel, or was not recovered. If known, provide the name of the surface water body, drainage channel, or drainage structure.

6.3.2.3.3.9. Estimate of the Category 1 or 2 Event volume recovered from all sources and media (if applicable).

6.3.2.3.3.10. Number of Category 1 or 2 Event appearance point(s) (i.e., location(s) where wastewater surfaced).

6.3.2.3.3.11. Description and location of Category 1 or 2 Event appearance point(s). If a single Category 1 or 2 Event results in multiple spill appearance points, each appearance point must be described.

6.3.2.3.3.12. Category 1 or 2 Event start date and time.

6.3.2.3.3.13. Date and time the Discharger was notified of, or self-discovered, the Category 1 or 2 Event.

6.3.2.3.3.14. Estimated operator arrival time (if applicable).

6.3.2.3.3.15. Category 1 or 2 Event end date and time or expected end date and time.

6.3.2.3.3.16. Date and time when cleanup was completed (if applicable).

6.3.2.3.3.17. Probable cause of the Category 1 or 2 Event (if known).

6.3.2.3.3.18. For Category 1 or 2 Events greater than or equal to 1,000 gallons, the date and time Cal OES was contacted.

6.3.2.3.3.19. For Category 1 or 2 Events greater than or equal to 1,000 gallons, the Cal OES control number.

6.3.2.3.4. For Category 1 and 2 Events, the Discharger shall submit a certified report within 15 calendar days of spill/flow end date by email to the San Diego Water Board (RB9Spill_Report@waterboards.ca.gov), DEH, local municipalities, and interested stakeholders. The report shall be signed and certified as required in Attachment D, section 5.2 of this Order. At a minimum, the following mandatory information shall be reported for the certified report, in addition to all fields in section 6.3.2.3.3 above:

6.3.2.3.4.1. Description of Category 1 or 2 Event terminal destination(s).

6.3.2.3.4.2. Category 1 or 2 Event end date and time.

6.3.2.3.4.3. Category 1 or 2 Event cause(s) (e.g., pipe blockage; fats, oil, and grease; root intrusion; pipe break; pump station failure; power outage; component failure; inadequate hydraulic capacity; inflow and infiltration; or vandalism).

6.3.2.3.4.4. Category 1 or 2 Event failure point (e.g., pump station, junction point, etc.).

6.3.2.3.4.5. Whether or not the Category 1 or 2 Event was associated with a storm event.

6.3.2.3.4.6. Description of Category 1 or 2 Event corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the Category 1 or 2 Events; and a schedule of major milestones for those steps.

6.3.2.3.4.7. Description of Category 1 or 2 Event response activities.

6.3.2.3.4.8. Category 1 or 2 Event response completion date.

6.3.2.3.4.9. Whether or not there is an ongoing investigation, the reasons for the investigation, and the expected date of completion.

6.3.2.3.4.10. Whether or not health warnings were posted as a result of the spill/flow (if known).

6.3.2.3.4.11. Name of beach(es) closed and/or impacted (if known).

6.3.2.3.4.12. Name of surface water(s) impacted.

6.3.2.3.4.13. Location and number of water quality samples collected or reason why no samples collected.

6.3.2.3.4.14. Parameters for which the water quality samples (if any) were analyzed.

6.3.2.3.4.15. Regulatory agencies that received sample results (if any).

6.3.2.3.4.16. Description of methodology(ies) and data relied upon for estimations of the spill/flow volume and amount recovered.

6.3.2.3.5. For Category 3 Events, the Discharger shall report the event in the monthly summary report required under the MRP in Attachment E, section 4.2.5 of this Order.

6.3.2.3.6. For Category 4 Events, as soon as the Discharger has knowledge of the Category 4 Event, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures, the Discharger shall immediately notify the Cal OES of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to article 3.7 (commencing with section 8574.16) of chapter 7 of division 1 of title 2 of the Government Code. (Water Code section 13271)

6.3.2.3.7. For Category 5 Events, as soon as the Discharger has knowledge of the Category 5 Event, notification is possible, and notification can be provided without substantially impeding cleanup or other emergency measures, the Discharger shall immediately notify the Cal OES of the Category 5 Event in accordance with the spill reporting provision of the California oil spill contingency plan adopted pursuant to article 3.5 (commencing with section 8574.1) of chapter 7 of division 1 of title 2 of the Government Code. This section shall not apply to spills of oil into marine waters defined in Subdivision (f) of section 8670.3 of the Government Code. (Water Code section 13272)

6.3.2.3.8. For Category 6 Events, the Discharger shall notify the San Diego Water Board (RB9Spill_Report@waterboards.ca.gov), DEH, local municipalities, and interested stakeholders within 24 hours of becoming aware of the Category 6 Event.

6.3.2.3.9. For all Spill and Transboundary Flow Events, the Discharger shall include a detailed summary of the event in the monthly SMRs for the month in which the event occurred, as required in section 4.2.5 of the MRP (Attachment E of this Order).

6.3.2.3.10. The Spill and Transboundary Flow Event reporting requirements contained in this Order do not relieve the Discharger of responsibilities to report the event to other agencies, such as the Cal OES and San Diego County DEH.

6.3.2.4. **Spill Event Responsiveness and Remedial Actions**

This section shall apply to Spill Events. The Discharger may also apply this section of the Flow Prevention/Response Plan to dry weather Canyon Collector Transboundary Flow Events in excess of their design capacity and Other Canyon Transboundary Flow Events. The San Diego Water Board recommends, requests, and encourages the Discharger to apply this section of the Flow Prevention/Response Plan to dry weather Canyon Collector Transboundary Flow Events in excess of their design capacity and Other Canyon Transboundary Flow Events as much as reasonably possible to protect water quality and beneficial uses.

6.3.2.4.1. When a Spill Event occurs, the Discharger shall take all steps and remedial actions to:

- Minimize the volume of the Spill Event entering into the environment.
- Immediately terminate the Spill Event.
- Recover and properly dispose of as much of the Spill Event volume as possible, including any wash down water.

6.3.2.4.2. The Discharger's remedial actions for all Spill Events must be consistent with the Flow Prevention/Response Plan described in section 6.3.2.1.2 of this Order. Remedial actions shall include, but not be limited to the following techniques to the extent applicable:

- Use of sandbags or containment barriers.
- Containment in downstream storm drains and plugging downstream storm drain outlets to capture as much of the Spill Event as possible.
- Excavation as necessary to establish containment of the Spill Event.
- Collection of solid and liquid material and other debris.
- Vacuum truck recovery of waste or polluted water and wash down water.
- Cleanup of debris within the affected area(s).
- Cleanup of any impacted storm drains.
- System modifications to prevent other Spill Events at the same location.
- Required monitoring to determine the nature and impact of the discharge.
- Timely notification to public health agencies, such as the Cal OES and San Diego County DEH, to protect the public health.

**6.3.2.5. Asset Management Plan.**

6.3.2.5.1 The Discharger shall develop and submit to the San Diego Water Board within 180 days of the effective date of this Order an Asset Management Plan to ensure proper operation and maintenance of the Facility. The Discharger may rely on existing documents to develop the Asset Management Plan. The Asset Management Plan shall include the following elements:

6.3.2.5.1.1. Rehabilitation and Replacement Plan. The Asset Management Plan shall identify and prioritize upcoming asset rehabilitation and replacement projects costing greater than $5,000 and outline a proposed schedule for completion of each project.

6.3.2.5.1.2. Maintenance Plan. The Asset Management Plan shall identify individual, or categories of, maintenance activities and frequency with which they are performed. The Maintenance Plan shall estimate ongoing and projected cost of maintenance activities.

6.3.2.5.1.3. System Map. A map of the system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the wastewater treatment facility shall incorporate assets from the asset management inventory. The map shall be color-coded to identify maintenance and rehabilitation priorities.

6.3.2.5.1.4. Funding. The Asset Management Plan shall create an accounting of current and projected funding sources, relevant expenses, and financial reserves. Expenses may include operational, administrative, interest, or capital expenses. Funding sources may include federal, state, local, or private grants, loans, or bonds, as well as connection and user fees. The Asset Management Plan shall include an itemized list of funding requested from Congress and for the last five budget cycles, the items that received funding, the items that did not receive funding, and the projected outcomes for not implementing the items that did not receive funding.

6.3.2.5.1.5. System Projections. Evaluate growth projections of population and service area and potential vulnerabilities resulting from climate change over the next 30 years.

6.3.2.5.1.6. Asset Management Software. The Asset Management Plan shall incorporate software to inventory all critical assets valued over $5,000 into a single database, automate work order production and tracking, and prioritize system maintenance and rehabilitation projects Assets may include, but are not limited to, sewer lines, manholes, outfalls, pump stations, force mains, catch basins, and wastewater treatment facility assets. Each entry shall include:

- Name and identification number
- Location (GPS coordinate or equivalent identifier)
- Current performance/condition
- Purchase and installation date
- Purchase price
- Replacement cost
- Quantitative consequence of failure
- Quantitative likelihood of failure

6.3.2.5.2. The Discharger shall implement the Asset Management Plan within 60 days following submission to the San Diego Water Board, unless otherwise directed in writing by the San Diego Water Board Executive Officer.

6.3.2.5.3. The Discharger shall reevaluate and update the Asset Management Plan as needed and at least 180 days prior to the expiration date of this Order. The Discharger shall timely provide each updated or revised Asset Management Plan to the San Diego Water Board.

### 6.3.3. Best Management Practices and Pollution Prevention

#### 6.3.3.1. Pollutant Minimization Program

The goal of the Pollutant Minimization Program (PMP) is to maintain the effluent concentration at or below the effluent limitation. The PMP may, at the Discharger's discretion, include actions in consultation with Mexico, however, these actions are not required and shall not be enforced as requirements under this Order. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The San Diego Water Board may consider cost-effectiveness when establishing the

requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to Water Code section 13263.3, subdivision (d), shall be considered as fulfilling the PMP requirements. Reporting protocols in the MRP (Attachment E of this Order) describe sample results that are to be reported as Detected, But Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in the Ocean Plan and in Abbreviations and Definitions (Attachment A of this Order). These reporting protocols and definitions are used in determining the need to conduct a PMP, as follows:

6.3.3.1.1. The Discharger shall develop and conduct a PMP if all the following conditions are true:

6.3.3.1.1.1. The calculated effluent limitation is less than the reported Minimum Level (ML);

6.3.3.1.1.2. The concentration of the pollutant is reported as DNQ; and

6.3.3.1.1.3. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation;

6.3.3.1.2. Alternatively, the Discharger shall develop and conduct a PMP if all of the following conditions are true:

6.3.3.1.2.1. The calculated effluent limitation is less than the MDL;

6.3.3.1.2.2. The concentration of the pollutant is reported as ND; and

6.3.3.1.2.3. There is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.

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

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

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

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

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

6.3.3.2.5. The Discharger shall submit an annual status report to the San Diego Water Board no later than February 1 of each year that includes the following:

6.3.3.2.5.1. All PMP monitoring results for the previous year;

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

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

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

### 6.3.4. Construction, Operation and Maintenance Specifications

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

6.3.4.1.1. The certification report shall:

6.3.4.1.1.1. Identify the design capacity of the treatment facility, including the daily and 30-day design capacity;

6.3.4.1.1.2. Certify the adequacy of each component of the treatment facility; and

6.3.4.1.1.3. Contain a requirement-by-requirement analysis, based on acceptable engineering practices, of the process and physical design of the facility to ensure compliance with this Order.

6.3.4.1.2. The Discharger shall not initiate a discharge from a treatment facility at a daily flow rate in excess of its previously approved design capacity until:

6.3.4.1.2.1. The certification report is received by the San Diego Water Board,

6.3.4.1.2.2. The San Diego Water Board has received written notification of completion of construction (new or expanded treatment facilities only),

6.3.4.1.2.3. An inspection of the facility has been made by the San Diego Water Board or its designated representatives (new or expanded treatment facilities only), and

6.3.4.1.2.4. The San Diego Water Board has provided the Discharger with written authorization to initiate discharge from a new or expanded treatment facility or at a daily flow rate in excess of its previously approved design capacity.

6.3.4.2. All waste treatment, containment, and disposal facilities shall be protected against 100-year frequency Tijuana River flood flows as defined by the San Diego County Flood Control District (FCD).

6.3.4.3. All waste treatment, containment, and disposal facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour storm event as defined by the National Oceanographic and Atmospheric Administration (NOAA) Atlas 14 Point Precipitation Frequency Estimates (available at: https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html).

6.3.4.4. The Facility shall be protected against regional impacts of changing climate conditions including but not limited to rising sea levels, flooding, higher storm surges, and changing hydrography (including more intense atmospheric rivers). Compliance with this requirement shall be implemented through development and

implementation of applicable measures identified in the Climate Change Action Plan which is required to be submitted within three years of the effective date of this Order pursuant to section 6.1 of Attachment E.

6.3.4.5. The Discharger shall provide and maintain in good working order a sufficient alternate power source(s) to assure that, in the event of the loss, reduction, or failure of electrical power, the Facility is in compliance with the terms and conditions of this Order. In addition to a sufficient alternate power source(s), backup systems may also include auxiliary power generators, retention storage capacity, emergency operation procedures, and other contingencies to ensure continuous operation of all critical devices and systems used in the conveyance, storage, treatment, and recycling of municipal wastewater in the event of the loss, reduction, or failure of electrical power. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, sea level rise, and other physical phenomena. The alternate power source(s) shall be designed to permit inspection and maintenance and shall provide for periodic testing.

### 6.3.5. Special Provisions for Wastewater Facility

#### 6.3.5.1. South Bay Ocean Outfall Capacity Report

No later than 180 days prior to this Order's expiration date, the Discharger shall submit a written report to the San Diego Water Board regarding capacity of the South Bay Ocean Outfall (SBOO) that addresses the following items:

6.3.5.1.1 Most current report on the SBOO capacity conducted within one year of the expiration date of this Order.

6.3.5.1.2. The Discharger's best estimate of when the average daily flow will equal or exceed the SBOO capacity.

6.3.5.1.3. The Discharger's intended schedule for studies, design, and other step needed to provide additional capacity for the SBOO and/or to control the flow rate before the flow rate is equal to the current outfall capacity.

6.3.5.1.4. Report on the physical condition of the SBOO.

6.3.5.1.5. A certified statement signed by a California Licensed Engineer that states that the capacity of the SBOO is at least 40 MGD (or the total permitted discharge from the Facility and South Bay Water Reclamation Plant (SBWRP), whichever is higher).

6.3.5.1.6. The report must be signed and agreed upon by each of the parties discharging through the SBOO.

#### 6.3.5.2. Treatment Plant Capacity Exceedance Action Plan

The Discharger shall submit a Treatment Plant Capacity Exceedance Action Plan to the San Diego Water Board within 90 days of this Order being amended[1]. The San Diego Water Board shall provide comments on the Treatment Plant Capacity Exceedance Action Plan no later than 45 days from the date it is submitted. The

[1] This requirement does not apply to Order No. R9-2026-0005.

Discharger shall appropriately revise the Treatment Plant Capacity Exceedance Action Plan pursuant to the San Diego Water Board's comments. The Discharger shall implement the Treatment Plant Capacity Exceedance Action Plan within 90 days of receiving the San Diego Water Board's comments, unless otherwise directed in writing by the San Diego Water Board Executive Officer.

The Treatment Plant Capacity Exceedance Action Plan shall describe the actions the Discharger can and/or will take within the United States in the event influent wastewater flows exceed the Facility's design capacity. The Treatment Plant Capacity Exceedance Action Plan may, at the Discharger's discretion, include actions in consultation with Mexico, however, these actions shall not be enforced as requirements under this Order.

The Treatment Plant Capacity Exceedance Action Plan shall include provisions the Discharger will take for the appropriate, prompt, and timely response to minimize the impact of excessive influent flows on the treatment works or Facility operations to ensure compliance with effluent limitations and receiving water limits contained within this Order and to protect public health and beneficial uses. The Treatment Plant Capacity Exceedance Action Plan shall consider the Facility's peak hydraulic capacity, its peak design flow, its average flow rate, and its secondary treatment design capacity. The Treatment Plant Capacity Exceedance Action Plan shall (1) identify the duly authorized individual(s) or position(s) having overall responsibility for the development and implementation of the Treatment Plant Capacity Exceedance Action Plan, including the names of any key individuals, their associated position titles, email addresses, and telephone numbers, and (2) provide a description of their roles, responsibilities to implement the Influent Treatment Plant Capacity Exceedance Action Plan, and lines of authority. The Discharger shall revise the Treatment Plant Capacity Exceedance Action Plan periodically or as requested by the San Diego Water Board. Failure to implement the Treatment Plant Capacity Exceedance Action Plan to minimize the impact of excessive influent flows on the treatment works and Facility operations may, without good cause, be a violation of this Order and may result in effluent limitation violation(s).

#### 6.3.5.3. Influent Action Levels and Source Control Requirements

##### 6.3.5.3.1. Influent Action Levels

The Discharger shall monitor for the "Influent Action Levels," set forth in Table 4 below, as measured at Monitoring Location INF-001, described in the MRP (Attachment E of this Order). An exceedance of an Influent Action Level is not a violation of this Order.

**Table 4. Influent Action Levels at Monitoring Location INF-001**

| Parameter | Average Monthly Influent Concentration Action Level (mg/L) | Average Monthly Influent Mass Action Level (lbs/day) |
|---|---|---|
| Antimony | 0.44 | ~~92~~128.52 |

| | | |
|---|---|---|
| Arsenic, Total Recoverable | 0.0403 | 8.4111.77 |
| Cadmium, Total Recoverable | 0.0165 | 3.444.82 |
| Chromium, Total | 0.257 | 53.675.07 |
| Copper, Total Recoverable | 0.048 | 1014.02 |
| Cyanide, Total | 0.103 | 21.430.09 |
| Lead, Total Recoverable | 0.259 | 5475.65 |
| Mercury, Total Recoverable | 0.00369 | 0.771.08 |
| Molybdenum | 0.337 | 70.298.43 |
| Nickel, Total Recoverable | 0.218 | 45.563.68 |
| Selenium, Total Recoverable | 0.0208 | 4.346.08 |
| Silver, Total Recoverable | 0.0916 | 19.126.76 |
| Thallium, Total Recoverable | 0.212 | 44.261.92 |
| Zinc, Total Recoverable | 0.082 | 17.123.95 |
| Chlorodibromomethane | 2.61 | 545762.35 |
| Chloroform | 0.0116 | 2.413.39 |
| Phenol | 3.26 | 680952.21 |
| Tetrachlorodibenzodioxin (TCDD) Equivalents | 2.33E-08 | 4.86E6.81E-06 |
| Toluene | 0.150 | 31.27543.81 |

6.3.5.3.1.1. **Influent Action Level Response**

The Discharger shall notify the San Diego Water Board within 2 business days of becoming aware of an influent reading that exceeds the action levels listed in Table 4. Within 5 business days of that notification, the Discharger shall notify the San Diego Water Board of actions it has taken or intends to take in response to the exceedance. Notification shall be by email to sandiego@waterboards.ca.gov.

If influent exceeds any action level in Table 4 on an average basis over the course of a month, the Discharger shall notify the San Diego Water Board of additional actions that it has taken to mitigate or prevent the exceedance. The Discharger shall also provide to the San Diego Water Board an assessment of whether the exceedance of influent action levels has interfered with the proper functioning of the Plant, and if so, what repairs the Discharger plans to take to correct the problem. Notification, assessment, and responsive actions will be included with the monthly report that the Discharger provides to the San Diego Water Board.

An Influent Action Level Response may, at the Discharger's discretion, include actions in consultation or coordination with Mexico, however, these actions shall not be enforced as requirements under this Order.

6.3.5.3.1.2. If the Discharger becomes aware that influent to the Facility has significantly changed due to service population and/or industrial contributors, or for other

reasons, the Discharger shall notify the San Diego Water Board within seven days.

6.3.5.3.1.3. **Influent Action Level Study**

The Discharger shall initiate a new "Influent Action Level Study" within 180 days of notifying the San Diego Water Board in section 6.3.5.3.1.2.

6.3.5.3.1.3.1. In developing an Influent Action Level Study, the Discharger shall determine mass emission rates and concentration limitations for the influent to the Facility (influent action level for pollutants that may cause or contribute to interference, pass through, or the other problems described at 40 CFR section 403.5). The Influent Action Level Study may be developed in consultation with interested stakeholders who can provide technical input and support. The Influent Action Level Study shall propose new influent action levels that are necessary to meet applicable water quality standards. At a minimum, the following information shall be considered in developing the influent action levels:

- Wastewater characteristics - Monthly average plant operational data from the Facility and other wastewater monitoring data after secondary treatment was completed.
- Effluent limitations and discharge specifications - The analysis shall be conducted using the effluent limitations and discharge specifications contained in this Order.
- Inhibition/interference data - Literature from USEPA guidance or other sources. The analysis shall include, but is not be limited to, inhibition/inference from litter, sand, and sediment.
- Process removal data - If influent and effluent values are available, actual removal rates from advanced primary and secondary treatment operating data at the Facility shall be calculated. If sufficient data are not available, literature values from the USEPA Water Engineering Research Laboratory (WERL) Treatability Database may be used. A mass balance (input-output) approach shall be conducted to convert criteria into allowable headworks loadings. This includes tracing the routes of each pollutant through the treatment process, taking into account pollutant removals in treatment units.
- Background data - Values for domestic/background levels from USEPA guidance or other sources.
- Safety factor - The Discharger shall recommend and evaluate appropriate approaches regarding growth, slug loadings, and data uncertainty.

6.3.5.3.1.4. The Discharger shall submit the report with the proposed influent action levels to the San Diego Water Board via the State Water Board's CIWQS Program website, no later than one year after the initiation of the Influent Action Level Study, for approval. The San Diego Water Board may reopen this Order for modification based on the new information in the Influent Action Level Study.

6.3.5.3.2. **Sharing Influent and Source Control Information with Interested Stakeholders**

6.3.5.3.2.1. **Influent Action Levels and Source Control Requirements for BTC Meetings**

The Discharger shall conduct BTC meetings, with simultaneous translation services, if needed, on influent action levels and source control matters. The desired outcome of the of the BTC meetings is to:

- Prevent the introduction of pollutants into the Facility that will interfere with its operation, including interference with the use or disposal of Facility sludges,
- Prevent the introduction of pollutants into the Facility that will pass through the treatment works or otherwise be incompatible with it, and
- Improve opportunities to recycle and reclaim Facility wastewaters and sludges.

6.3.5.3.2.1.1. The Discharger shall conduct the BTC meetings periodically but no less than two times per year. At least one of these meetings must be on the U.S. side of the border. The Discharger shall invite interested stakeholders to the BTC meetings. The interested stakeholders shall consist of a diverse group of individuals or entities to provide technical input on influent action levels and source control matters. For purposes of this section and the BTC meetings, interested stakeholders may include, but are not limited to, the San Diego Water Board, USEPA, the County of San Diego, the City of San Diego, the City of Imperial Beach, California State Parks, U.S. Fish and Wildlife, California Department of Fish and Wildlife, NGOs (e.g., Tijuana-based Tijuana Calidad de Vida and Proyecto Fronterizo de Educación Ambiental, WILDCOAST, Surfrider Foundation San Diego, and San Diego Coastkeeper), or international partners, such as CILA, SPA, CESPT, PROFEPA, CONAGUA, SDUE. To allow for meaningful participation, notice of the BTC meetings shall be given to interested stakeholders at least two weeks prior to the scheduled meeting date.

6.3.5.3.2.1.2. The Discharger shall prepare an agenda with input from invited stakeholders and shall prepare a meeting summary after the meeting and distribute to all invited stakeholders.

6.3.5.3.2.1.3. The Discharge shall upload the agenda and meeting summary to CIWQS within 30 days after the meeting.

6.3.5.3.2.1.4. The Discharger may combine BTC meetings for source control with the BTC meetings for transboundary flows required in section 6.3.2.2.1 of this Order.

6.3.5.3.2.1.5. The Discharger shall promote discussion of interests that affect the operation and maintenance of the Facility, including but not limited to the following information:

- Influent monitoring data;

- A comparison of influent monitoring data compared to the influent action levels, including identification of any exceedances of influent action levels;
- An analysis of the influent monitoring data, including an evaluation and interpretation of the influent data and a discussion of any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works, including but not limited to interference as defined in 40 CFR section 403.3(k), pass through of pollutants as defined in 40 CFR section 403.3(p), or acute worker health and safety problems or other problems as defined in 40 CFR section 403.5(b); and
- A description of the steps taken or planned by the Discharger and/or the government of Mexico, to the extent known by the Discharger, to reduce, eliminate, and prevent the reoccurrence of noncompliance with influent action levels or any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works.

6.3.5.3.2.2. [Intentionally omitted.]

6.3.5.3.2.3. At the same time they are submitted to the San Diego Water Board, the Discharger shall share the monthly SMR with interested stakeholders. The monthly SMR shall include at a minimum the following information:

6.3.5.3.2.3.1. Influent monitoring data;

6.3.5.3.2.3.2. A comparison of influent monitoring data compared to the influent action levels, including identification of any exceedances of influent action levels;

6.3.5.3.2.3.3. An analysis of the influent monitoring data, including an evaluation and interpretation of the influent data and a discussion of any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works, including but not limited to interference as defined in 40 CFR section 403.3(k), pass through of pollutants as defined in 40 CFR section 403.3(p), or acute worker health and safety problems or other problems as defined in 40 CFR section 403.5(b); and

6.3.5.3.2.3.4. A description of the steps taken or planned to reduce, eliminate, and prevent the reoccurrence of influent action level exceedances or any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works.

6.3.5.3.2.4. **Annual Presentations to the San Diego Water Board**

The Discharger shall present annual oral reports to the San Diego Water Board, as requested by the Executive Officer, to review the influent action levels and source control requirements of this Order. The presentation shall:

- Summarize influent monitoring data for the Facility;
- Compare the influent monitoring data to the influent action levels, identifying any exceedances of influent action levels;
- Compare the current influent monitoring data with the influent monitoring data from the previous year for the same time periods;

- Analyze the influent monitoring data, including an evaluation and interpretation of the influent data and a discussion of any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works, including but not limited to interference as defined in 40 CFR section 403.3(k), pass through of pollutants as defined in 40 CFR section 403.3(p), or acute worker health and safety problems or other problems as defined in 40 CFR section 403.5(b); and
- Describe the steps taken or planned to respond to influent action levels exceedances or any actual or potential adverse effect(s) attributable to the influent on the Facility treatment works.

6.3.5.3.2.4.1. The presentation may be combined with the technical presentation required in section 6.3.2.2.5 of this Order.

6.3.5.3.3. **Source Control Requirements for the Discharger**

To ensure proper operation and maintenance of the Facility, protection of water quality and beneficial uses, and that the influent action levels will be met, the Discharger shall comply with the following source control requirements.

6.3.5.3.3.1. **Untreated Industrial Wastewater and Pollutant Prevention Goals**

The Discharger shall take all appropriate actions within the United States and within the scope of its authority in response to the discharge of untreated industrial wastewater into the Facility. The Discharger is also encouraged to take further action to prevent the discharge of untreated industrial wastewater into the Facility. In particular, the Discharger is encouraged to work with interested stakeholders to prevent the introduction of pollutants into the Facility that 1) inhibit or disrupt the Facility, the treatment processes and/or operations, or the sludge processes, use, or disposal; or 2) pass through the Facility in quantities or concentrations that cause or contribute to an exceedance of an applicable water quality standard in the receiving water.

6.3.5.3.3.2. The Discharger shall monitor the pollutants in the influent to the Facility and report the monitoring results as specified in the MRP (Attachment E of the Order).

6.3.5.3.3.3. The Discharger is encouraged to work with interested stakeholders to:

6.3.5.3.3.3.1. Improve communication between interested stakeholders with respect to influent quality and effluent quality at the Facility;

6.3.5.3.3.3.2. Provide training to interested stakeholders regarding source control requirements and the impacts of influent action levels exceedances;

6.3.5.3.3.3.3. Provide funding, if available, and/or assistance to interested stakeholders to improve monitoring capabilities, to improve laboratory analytical capabilities (including lab certification), and to assist in providing educational programs to interested stakeholders.

6.3.5.3.3.5. By March 31 of each year, the Discharger shall submit an annual report to USEPA Region 9 and the San Diego Water Board for the previous calendar year. The report shall contain the following:

6.3.5.3.3.5.1. A discussion of upset, interference, or pass through incidents at the Facility, if any, which the Discharger knows or suspects were caused by the influent to the Facility;

6.3.5.3.3.5.2. Influent action level exceedances, if any;

6.3.5.3.3.5.3. A discussion of any coordination with interested stakeholders to determine the reasons why the incidents above occurred and any corrective actions (if applicable);

6.3.5.3.3.5.4. A description of all activities undertaken during the previous calendar year working with interested stakeholders to address any upset, interference, or pass through incidents described in section 6.3.5.3.3.5.1, to address any influent action level exceedances, and to meet the requirements in section 6.3.5.3.1.1;

6.3.5.3.3.5.5. A description of any changes in sludge disposal methods;

6.3.5.3.3.5.6. A description of any significant changes in the influent action levels or Influent Action Level Response Plan;

6.3.5.3.3.5.7. A discussion of any concerns not described elsewhere in this report.

6.3.5.3.3.5.8. The Discharger shall upload this annual report to CIWQS and submit it to USEPA Region 9 at the following email address: R9pretreatment@epa.gov.

6.3.5.3.3.6. If the requirements in this Order are not sufficient to achieve the goals described in section 6.3.5.3.3.1, the Discharger shall submit a proposal for additional action(s) that will be taken to achieve these goals, and the Order may be amended to incorporate the proposed actions. The proposal must be received by the San Diego Water Board within 6 months of the Discharger becoming aware that the requirements in this Order are not sufficient to achieve the goals.

6.3.5.4. **Sludge (Biosolids) Disposal Requirements**

6.3.5.4.1. General Requirements Applicable to Sludge (biosolids) Disposal in the U.S. (not applicable to sludge (biosolids) disposal outside of the U.S.)

6.3.5.4.1.1. All biosolids generated by the Discharger during the treatment of wastewater shall be used or disposed of in compliance with applicable portions of 40 CFR part 503 - for biosolids that are land applied, placed on a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR part 258 - for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR part 257 - for all biosolids use and disposal practices not covered under 40 CFR parts 258 or 503. The preparer of the biosolids is required under 40 CFR section 503.7 to ensure that the applicable requirements in 40 CFR part 503 are met when the sewage sludge is applied to the land.

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

The Discharger shall take all reasonable steps to ensure that all biosolids produced at the Facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under these rules.

6.3.5.4.1.2. The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

6.3.5.4.1.3. No biosolids shall be allowed to enter wetlands or other waters of the U.S.

6.3.5.4.1.4. Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.

6.3.5.4.1.5. Biosolids treatment, storage, use, or disposal shall not create a nuisance condition such as objectionable odors or flies.

6.3.5.4.1.6. The Discharger shall take all reasonable steps to ensure that haulers transporting biosolids offsite for treatment, storage, use, or disposal are contractually required to take all necessary measures to keep the biosolids contained. Trucks hauling biosolids that are not classified Class A with respect to pathogens, as defined at 40 CFR section 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck, or wheels. Trucks hauling biosolids that are not Class A shall be tarped. All haulers must have and implement spill clean-up procedures. Trucks hauling biosolids that are not Class A shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.

6.3.5.4.1.7. If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all requirements for surface disposal under 40 CFR part 503, subpart C, or must submit a written notification to USEPA, the State Water Board, and the San Diego Water Board with the information specified under 40 CFR section 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether at the Facility or offsite, adequate procedures must be taken to restrict access by the public and domestic animals.

6.3.5.4.1.8. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year, 24-hour frequency storm event as defined by the NOAA

Atlas 14 Point Precipitation Frequency Estimates and the highest tidal stage which may occur.

6.3.5.4.1.9. If the biosolids are land applied, there shall be adequate screening at the Facility and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects are removed.

6.3.5.4.1.10 In the event that the Government of Mexico is unable to truck the processed sludge and solids to Mexico for disposal, the Discharger shall develop a Sludge and Solids Contingency Plan to dispose of, or temporarily store, the processed sludge and solids in the U.S. Any disposal site or temporary storage site identified in the Sludge and Solids Contingency Plan shall comply with applicable provisions of section 405 of the CWA and USEPA regulations at 40 CFR parts 257, 258, 501, and 503, including all monitoring, record keeping, and reporting requirements. The Discharger shall submit the Sludge and Solids Contingency Plan to the San Diego Water Board and USEPA, no later than 180 days after the adoption of this Order.

6.3.5.4.2. Inspection and Entry

The USEPA, the San Diego Water Board, the State Water Board, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger directly, or through contractual arrangements with their biosolids management contractors, to:

6.3.5.4.2.1. Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal;

6.3.5.4.2.2. Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order or 40 CFR part 503; and

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

6.3.5.4.3. Monitoring

Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR section 503.16:

- arsenic
- cadmium
- chromium
- copper
- lead
- mercury

- molybdenum
- nickel
- selenium
- zinc
- total solids

If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

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

6.3.5.4.4. Pathogen and Vector Control

6.3.5.4.4.1. Prior to land application, the permittee shall demonstrate that biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 CFR section 503.32.

6.3.5.4.4.2. Prior to disposal on a surface disposal site, the Discharger shall demonstrate that biosolids meet Class B pathogen reduction levels or ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens" or one of the "Processes to Significantly Reduce Pathogens," the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR section 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform-24 hours when cooled to four °C; Salmonella spp. bacteria-24 hours when cooled to four °C; enteric viruses-two weeks when frozen; and helminth ova-one month when cooled to four °C.

6.3.5.4.4.3. For biosolids that are land applied or placed on a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve the Vector Attraction Reduction requirements under 40 CFR section 503.33(b).

6.3.5.4.5. Surface Disposal

If biosolids are placed on a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring

program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

6.3.5.4.6. Landfill Disposal

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

6.3.5.4.7. Notifications

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

6.3.5.4.7.1. Notification of Noncompliance

The Discharger shall notify USEPA, State Water Board, and San Diego Water Board (for both Discharger and use or disposal site) of any noncompliance with the biosolids within 24 hours, if the noncompliance may endanger health or the environment. For other instances of noncompliance with the biosolids, the Discharger shall notify USEPA, State Water Board, and San Diego Water Board of the noncompliance in writing within five working days of becoming aware of the noncompliance. The Discharger shall require their biosolids management contractors to notify USEPA, State Water Board, and San Diego Water Board of any noncompliance within these same time frames.

6.3.5.4.7.2. Interstate Notification

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

6.3.5.4.7.3. Land Application Notification

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

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

The Discharger shall notify the applier of all subject requirements under 40 CFR part 503, including the requirement for the applier to certify that management practices, site restrictions, and applicable vector attraction reduction

requirements have been met. The Discharger shall require the applier to certify at the end of 38 months, following application of Class B biosolids, that harvesting restrictions in effect for up to 38 months have been met.

6.3.5.4.7.4. Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA, the State Water Board, and the San Diego Water Board. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

6.3.5.4.8. Reporting

The Discharger shall submit an annual biosolids report to the State Water Board's CIWQS program website (https:/www.waterboards.ca.gov/water_issues/programs/ciwqs/) to the USEPA Biosolids Coordinator (CDX NeT electronic reporting system), and, if applicable, to the Arizona Department of Environmental Quality Biosolids Program Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:

6.3.5.4.8.1. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

6.3.5.4.8.2. Results of all pollutant monitoring required under section 6.3.5.4.3 of this Order. Results must be reported on a 100% dry weight basis.

6.3.5.4.8.3. Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR sections 503.17 and 503.27, and certifications.

6.3.5.4.8.4. Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, or other use or disposal method not covered above, and volumes delivered to each.

6.3.5.4.8.5. The following information must be submitted by the Discharger as an attachment to the CDX NeT electronic reporting system, unless the Discharger requires its biosolids management contractors to report this information directly to the USEPA Biosolids Coordinator:

6.3.5.4.8.5.1. For land application sites:

- Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner;
- Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen;
- Crops planted, dates of planting and harvesting;

- For biosolids exceeding 40 CFR section 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date;
- Certifications of management practices at 40 CFR section 503.14; and
- Certifications of site restrictions at 40 CFR section 503.32(b)(5).

6.3.5.4.8.5.2 For surface disposal sites:

- Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed;
- Results of any required groundwater monitoring;
- Certifications of management practices at 40 CFR section 503.24; and
- For closed sites, the date of site closure and certifications of management practices for three years following site closure.

6.3.5.4.9. All reports shall be submitted to:

State Water Board's CIWQS program website (https://www.waterboards.ca.gov/water_issues/programs/ciwqs/)

Regional Biosolids Coordinator
USEPA
Central Data Exchange (CDX) electronic reporting system

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

6.3.5.5. **Resource Recovery from Anaerobically Digestible Material**

If the Discharger plans to receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the San Diego Water Board and develop and implement Standard Operating Procedures (SOPs) for this activity. The SOPs shall be developed prior to receiving hauled-in anaerobically digestible material. The SOPs shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion; transportation; spill prevention; and spill response. In addition, the SOPs shall address avoidance of the introduction of materials that could cause interference, pass through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the SOPs and shall maintain records for a minimum of five years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of five years for the disposition, location, and quantity of cumulative pre-digestion-segregated solid waste hauled offsite.

**6.3.6. Other Special Provisions – Not Applicable**

### 6.3.7. Compliance Schedules – Not Applicable

## 7. Compliance Determination

Compliance with the effluent limitations contained in section 4 of this Order will be determined as specified below:

### 7.1. Compliance with Average Monthly Effluent Limitation (AMEL)

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

### 7.2. Compliance with Average Weekly Effluent Limitation (AWEL)

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

### 7.3. Compliance with Maximum Daily Effluent Limitation (MDEL)

The MDEL shall apply to flow weighted 24-hour composite samples, or grab samples, as specified in the MRP (Attachment E). If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. For any one day during which no sample is taken, no compliance determination can be made for that day.

### 7.4. Compliance with Instantaneous Minimum Effluent Limitation

The instantaneous minimum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g.,

the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of noncompliance with the instantaneous minimum effluent limitation).

### 7.5. Compliance with Instantaneous Maximum Effluent Limitation

The instantaneous maximum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of noncompliance with the instantaneous maximum effluent limitation).

### 7.6. Compliance with Six-Month Median Effluent Limitation

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

### 7.7. 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 ND or DNQ, the corresponding MER determined from that sample concentration shall also be reported as “ND” or “DNQ.”

### 7.8. Percent Removal

Compliance with percent removal requirements for average monthly percent removal of CBOD5 and TSS shall be determined for the Facility. The monthly average percent removal is the average of the calculated daily discharge percent removals only for days on which the constituent concentration is monitored in both the influent and effluent of the wastewater treatment facility at the locations specified in the MRP (Attachment E) within a calendar month.

The percent removal for each day shall be calculated according to the following equation:

Daily discharge percent removal = the influent concentration minus the effluent concentration, divided by the influent concentration, multiplied by 100.

### 7.9. 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 ML.

### 7.10. 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.

### 7.11. 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.

### 7.12. Mass Emission Rate (MER)

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

MER (lbs/day) = 8.34 x Q x C

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

### 7.13. Bacterial Standards and Analysis

#### 7.13.1. Geometric Mean

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

Geometric Mean = $(C1 \times C2 \times \ldots \times Cn)^{1/n}$

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

#### 7.13.2. The statistical threshold value (STV)

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

#### 7.13.3. Sample dilutions

Sample dilutions for fecal coliform bacterial analyses should be performed so the range of values extends from 2 to 16,000 CFU. Sample dilutions for enterococci bacterial analyses shall range from 1 to 10,000 CFU per 100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for fecal coliform shall be those listed in 40 CFR part 136 or any improved method determined by the San Diego Water Board (and approved by USEPA) to be appropriate. Detection methods used for enterococci shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR part 136, and any other method approved by the San Diego Water Board.

### 7.14. Single Operational Upset (SOU)

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

#### 7.14.1. A single unusual event

A SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

#### 7.14.2. Limit liability

A Discharger may assert SOU to limit liability in accordance with the USEPA *Memorandum Issuance of Guidance Interpreting Single Operational Upset* (September 27, 1989).

#### 7.14.3. Determination of compliance and civil liability

For purposes of Water Code sections 13385(h) and (i), determination of compliance and civil liability (including any more specific definition of SOU), the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations shall be in accordance with Water Code section 13385(f)(2).

### 7.15. Chronic Toxicity

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

Mean discharge "in-stream" waste concentration (IWC) response ≤0.75 × Mean control response.

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

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail".

The MDEL for chronic toxicity is set at the IWC for the discharge (1.06% effluent = IWC = 1/minimum initial dilution factor (Dm) = 1/94.6 = 0.0106) and expressed in units of the TST statistical approach ("Pass" or "Fail").

All monitoring for the MDEL for chronic toxicity shall be reported using the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* (EPA/600/R-95/136, 1995). The San Diego Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see section 4.3.5 of the Fact Sheet (Attachment F)). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the no-observed-effect-concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. SOPs used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the San Diego Water Board (40 CFR section 122.41(h)). The San Diego Water Board will make a determination as to whether a toxicity test result is compliant, and may consult with the Discharger, USEPA, the State Water Board's Quality Assurance (QA) Officer, or the State Water Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) as needed.

# Attachment A – Abbreviations and Definitions

## Part 1. – Abbreviations

| Abbreviation | Definition |
|---|---|
| 40 CFR | Title 40 of the Code of Federal Regulations |
| AMEL | Average Monthly Effluent Limitation |
| AMP | Asset Management Plan |
| AQUA | Aquaculture |
| ASBS | Areas of Special Biological Significance |
| ATP | Alternative Test Procedure |
| AUV | Autonomous Underwater Vehicle |
| AWEL | Average Weekly Effluent Limitation |
| Basin Plan | *Water Quality Control Plan for the San Diego Basin* |
| BAT | Best Available Technology Economically Achievable |
| BCT | Best Conventional Pollutant Control Technology |
| BIOL | Preservation of Biological Habitats of Special Significance |
| BMPs | Best Management Practices |
| $BOD_5$ | Biochemical Oxygen Demand (5-Day @ 20°C) |
| BPJ | Best Professional Judgement |
| BPT | Best Practicable Control Technology Currently Available |
| BRI | Benthic Response Index |
| °C | Degrees Celsius |
| $CBOD_5$ | Carbonaceous Biochemical Oxygen Demand (5-Day @ 20°C) |
| CCAP | Climate Change Action Plan |
| CCR | California Code of Regulations |
| CESPT | Comisión Estatal de Servicios Públicos de Tijuana, (State Commission of Public Services of Tijuana) |
| CEQA | California Environmental Quality Act |
| CFR | Code of Federal Regulations |
| CFU | Colony Forming Units |
| CILA | Comisión International de Limites y Aguas (the Mexican Section of the IBWC) |
| CIWQS | California Integrated Water Quality System |
| COMM | Commercial and Sport Fishing |
| CONAGUA | Comisión Nacional del Agua (Mexican National Water Commission) |
| CSM | Conceptual Site Model |
| CTD | Conductivity-Temperature-Depth |
| CWA | Clean Water Act |
| DDT | Dichlorodiphenyltrichloroethane |
| Discharger | International Boundary and Water Commission, United States Section |
| DEH | Department of Environmental Health |
| DMR | Discharge Monitoring Report |
| DNQ | Detected, But Not Quantified |

| Abbreviation | Definition |
|---|---|
| EC25 | Effects Concentration at 25 Percent |
| ELAP | Environmental Laboratory Accreditation Program |
| eSMR | Electronic Self-Monitoring Reports |
| °F | Degrees Fahrenheit |
| Facility | See definition for Facility in Attachment A, Part 2 of the Order. |
| FCD | Flood Control District |
| GPS | Global Positioning System |
| HCH | Hexachlorocyclohexane |
| Ho | Hypothesis |
| IBWC | International Boundary and Water Commission, United States and Mexico |
| IND | Industrial Service Supply |
| IU | Industrial User |
| IWC | "In-Stream" Waste Concentration |
| lbs/day | Pounds per Day |
| LC | Lethal Concentration |
| LC 50 | Percent Waste Giving 50 Percent Survival of Test Organisms |
| MAR | Marine Habitat |
| MDEL | Maximum Daily Effluent Limitation |
| MDL | Method Detection Limit |
| MEC | Maximum Effluent Concentration |
| MER | Mass Emission Rate |
| MF | Microfiltration |
| mg/kg | Milligram per Kilogram |
| mg/L | Milligram per Liter |
| MGD | Million Gallons per Day |
| MIGR | Migration of Aquatic Organisms |
| ML | Minimum Level |
| ml | Milliliter |
| ml/L | Milliliter per Liter |
| MRP | Monitoring and Reporting Program |
| MS4 | Municipal Separate Storm Sewer System |
| NAV | Navigation |
| ND | Not Detected |
| ng/kg | Nanogram per Kilogram |
| NOAA's | National Oceanic and Atmospheric Administration's |
| NOEC | No Observed Effect Concentration |
| NOEL | No Observed Effect Level |
| NPDES | National Pollutant Discharge Elimination System |
| NSPS | New Source Performance Standards |
| NTU | Nephelometric Turbidity Unit |
| Ocean Plan | *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* |
| PAHs | Polynuclear Aromatic Hydrocarbons |

| Abbreviation | Definition |
|---|---|
| PBDEs/BDEs | Polybrominated Diphenyl Ethers |
| PB-CILA | Mexico pump station Planta de Bombeo CILA |
| PB-1A | Mexico pump station Planta de Bombeo 1A |
| PB-1B | Mexico pump station Planta de Bombeo 1B |
| PCBs | Polychlorinated Biphenyls |
| pCi/L | Picocuries per Liter |
| PFAS | Per- and polyfluoroalkyl substances |
| PMP | Pollutant Minimization Program |
| PMSD | Percent Minimum Significant Difference |
| POTWs | Publicly-Owned Treatment Works |
| PPP | Pollution Prevention Plan |
| ppt | Parts per Thousand |
| PROFEPA | Procuraduría Federal de Protección al Ambiente |
| psu | Practical Salinity Unit |
| QA | Quality Assurance |
| QAPP | Quality Assurance Project Plan |
| QC | Quality Control |
| RARE | Rare, Threatened, or Endangered Species |
| REC-1 | Contact Water Recreation |
| REC-2 | Non-Contact Water Recreation |
| RCRA | Resource Conservation and Recovery Act |
| RL | Reporting Level |
| RO | Reverse Osmosis |
| ROTV | Remotely Operated Towed Vehicle |
| ROWD | Report of Waste Discharge |
| RPA | Reasonable Potential Analysis |
| San Diego Water Board | California Regional Water Quality Control Board, San Diego Region |
| SBOO | South Bay Ocean Outfall |
| SCCWRP | Southern California Coastal Water Research Project |
| SDUE | City of Tijuana's Secretaría de Desarrollo Urbano y Ecología |
| SHELL | Shellfish Harvesting |
| SMR | Self-Monitoring Report |
| SOPs | Standard Operating Procedures |
| SOU | Single Operational Upset |
| SPA | Secretaría de Protección al Ambiente |
| SPP | Spill Prevention Plan |
| SPWN | Spawning, Reproduction, and/or Early Development |
| SRP | Spill Response Plan |
| SSMPs | Sanitary Sewer Management Plans |
| SSO | Sanitary Sewer Overflow |
| State Water Board | State Water Resources Control Board |
| STV | Statistical Threshold Value |
| TAC | Test Acceptability Criteria |

| Abbreviation | Definition |
|---|---|
| TBELs | Technology-Based Effluent Limitations |
| 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 |
| TUa | Toxic Units Acute |
| TUc | Toxic Units Chronic |
| UF | Ultrafiltration |
| µg | Microgram |
| 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 |
| USIBWC | International Boundary and Water Commission, United States Section |
| U.S. | United States |
| Water Code | California Water Code |
| WDRs | Waste Discharge Requirements |
| WET | Whole Effluent Toxicity |
| WILD | Wildlife Habitat |
| WQBELs | Water Quality-Based Effluent Limitations |
| ZID | Zone of Initial Dilution |

**Part 2. – Definitions**

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

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

**Acute Toxicity**
a. Acute Toxicity (TUa)

Expressed in Toxic Units Acute (TUa)

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

b. Lethal Concentration 50% (LC 50)

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

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

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

where:

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

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

**Anaerobically Digestible Material**
Inedible kitchen grease as defined in section 19216 of the Food and Agricultural Code and food material as defined in title 14, division 7, chapter 3.1, article 1, section 17582(a)(20) of the CCR.

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

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

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

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

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

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

**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.

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

**Canyon Collector Systems**
The canyon collector systems (or canyon collectors) are designed to capture and convey dry weather transboundary flows to the SBIWTP for treatment and disposal through the SBOO. These dry weather transboundary flows begin in Mexico and drain north through canyons and ravines across the U.S. – Mexico international border to the Tijuana River Valley in California.

The five canyon collector systems located in Smugglers Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain and Silva Drain are considered part of the Facility that is owned and operated by USIBWC and regulated by this Order. Each canyon collector system consists of multiple components, including but not limited to a concrete apron, a weir, a diversion box which functions to trap sediment and floatable debris, and a gravity conveyance to the SBIWTP or pump stations.

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

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

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

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

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

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

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

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

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

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

**Dichlorodiphenyltrichloroethane (DDT)**
Shall mean the sum of 4,4'DDT, 2,4'DDT, 4,4'DDE, 2,4'DDE, 4,4'DDD, and 2,4'DDD.

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

**Discharge of a Pollutant**
Discharge of a pollutant means: (a) Any addition of any ''pollutant'' or combination of pollutants to ''waters of the United States'' from any ''point source,'' or (b) Any addition of any pollutant or combination of pollutants to the waters of the ''contiguous zone'' or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the U.S. 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.''

**Downstream Ocean Waters**
Waters downstream with respect to ocean currents.

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

**Dry Weather**
Dry weather is any period that is not categorized as wet weather.

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

**Facility**
The Facility consists of any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land use for the storage of treated wastewater in land treatment systems prior to land application) or is used for ultimate disposal of residues resulting from such treatment, including but not limited to the following:

- South Bay International Wastewater Treatment Plant
- Five diversion structures (also referred as canyon collectors)
  - Stewart's Drain
  - Canyon del Sol
  - Silva's Drain
  - Smuggler's Gulch
  - Goat Canyon
- Two pump stations
  - Hollister Street Pump Station
  - Goat Canyon Pump Station
- Two junction boxes
  - Junction Box 1

Junction Box 2
South Bay Land Outfall (SBLO)
South Bay Ocean Outfall (SBOO)
other associated infrastructure such as the pipes and conveyances between the diversion structures, pump stations, and the wastewater treatment plant.

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

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

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

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

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

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

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

**Interference**
A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent

State or local regulations): section 405 of the CWA, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**International Collector**
The gravity line in the City of Tijuana, Mexico sewer system ~~between pump station PB-CILA and pump station PB-1B. The Tijuana River diversion system, diagrammed in Attachment B, Figure 4 of this Order, diverts dry-weather river flows through the pump station PB-CILA, located just upstream of the international border, to the International Collector (gravity line) and then to pump station PB-1B.~~that conveys sewage from Tijuana's municipal collection system to PB-1.

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

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

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

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

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

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

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

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

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

**Pass Through**
A discharge which exits the ~~POTW~~Facility into waters of the U.S. in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the ~~POTW's~~Facility NPDES permit (including an increase in the magnitude or duration of a violation).

**Percent Removal**
A percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the average values of the raw wastewater influent pollutant concentrations to the facility and the average values of the effluent pollutant concentrations for a given time period.

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

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

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

**Pollutant**
Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. It does not mean: (a) Sewage from vessels; or (b) Water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil and gas production

and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if the State determines that the injection or disposal will not result in the degradation of ground or surface water resources.

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

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

**Reported Minimum Level (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.

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

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

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

**Six-Month Median Effluent Limitation**
See 6-Month Median above for definition of this term.

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

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

**Statistical Threshold Value (STV)**

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

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

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

**Thirty-Day Average**
See 30-day average above for definition of this term.

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

**Toxicity Reduction Evaluation (TRE)**
A study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the

collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

**Transboundary Flows**
Wastewater and other flows that cross the international border from Mexico into the U.S. A Transboundary Flow Event includes but is not limited to all Canyon Collector Transboundary Flow Events, Other Canyon Transboundary Flow Events, and Tijuana River Transboundary Flow Events.

**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**
“Waste” includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

**Water Quality Control Plans**
There are two types of water quality control plans - Basin Plans and Statewide Plans. Regional Boards adopt Basin Plans for each region based upon surface water hydrologic basin boundaries. The Regional Basin Plans designates or describes (1) existing and potential beneficial uses of ground and surface water; (2) water quality objectives to protect the beneficial uses; (3) implementation programs to achieve these objectives; and (4) surveillance and monitoring activities to evaluate the effectiveness of the water quality control plan. The Statewide Plans address water quality concerns for surface waters that overlap Regional Board boundaries, are statewide in scope, or are otherwise considered significant and contain the same four elements. Statewide Water Quality Control Plans include the Ocean Plan, the Enclosed Bays and Estuaries Plan, the Inland Surface Waters Plan, and the Thermal Plan. A water quality control plan consists of a designation or establishment for the waters within a specified area of (1) beneficial uses to be protected, (2) water quality objectives, and (3) a program of implementation needed for achieving water quality objectives [Water Code section 13050(j)].

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

**Water Quality Standards**
Provisions of State or federal law which consist of a designated use or uses for waters of the U.S. 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.

**Wet Weather**
Wet weather is the period of time when a storm event produces 0.1 inches or greater within a 24-hour period plus 72 hours after, based on the Goat Canyon Pump Station rain gauge, unless otherwise defined by another regulatory mechanism (e.g., a TMDL). Other rain gauges in the Tijuana River watershed may be provided for the San Diego Water Board to assess if transboundary flows in the Tijuana River main channel are attributable to wet weather.

**Zone of Initial Dilution**
Zone of Initial Dilution (ZID) is the region of Initial Dilution. The initial dilution is 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 nonbuoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant* mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.

## Attachment B – Maps

**Figure 1. International Wastewater Treatment Plan, South Bay Ocean Outfall, Tijuana River, and Tributary Canyons**

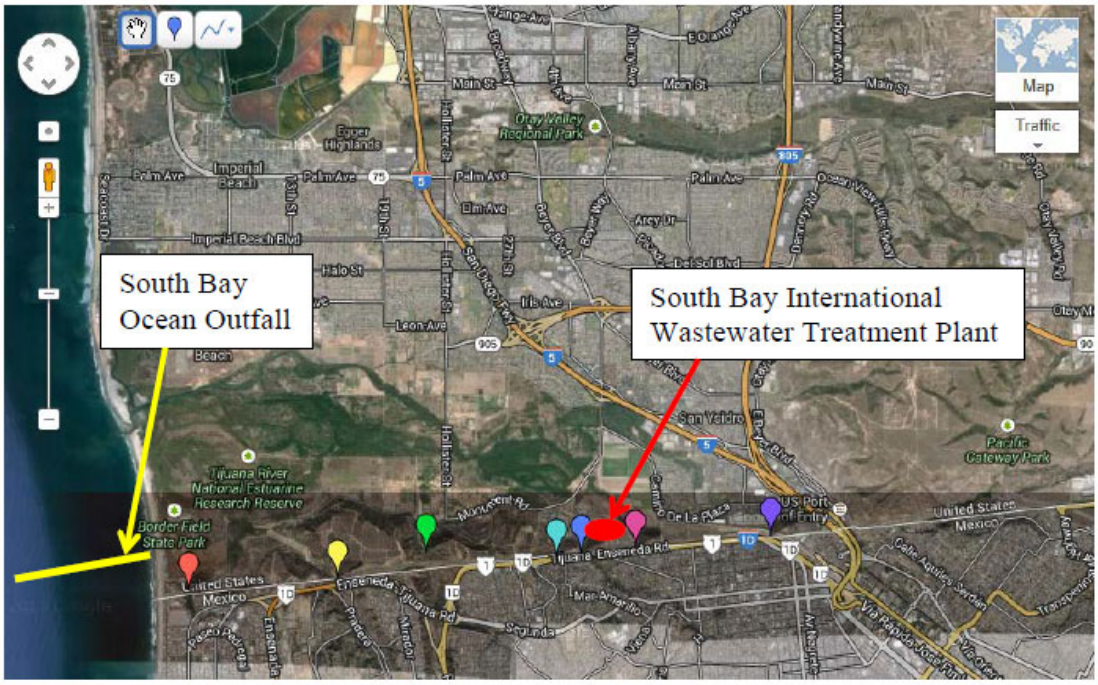
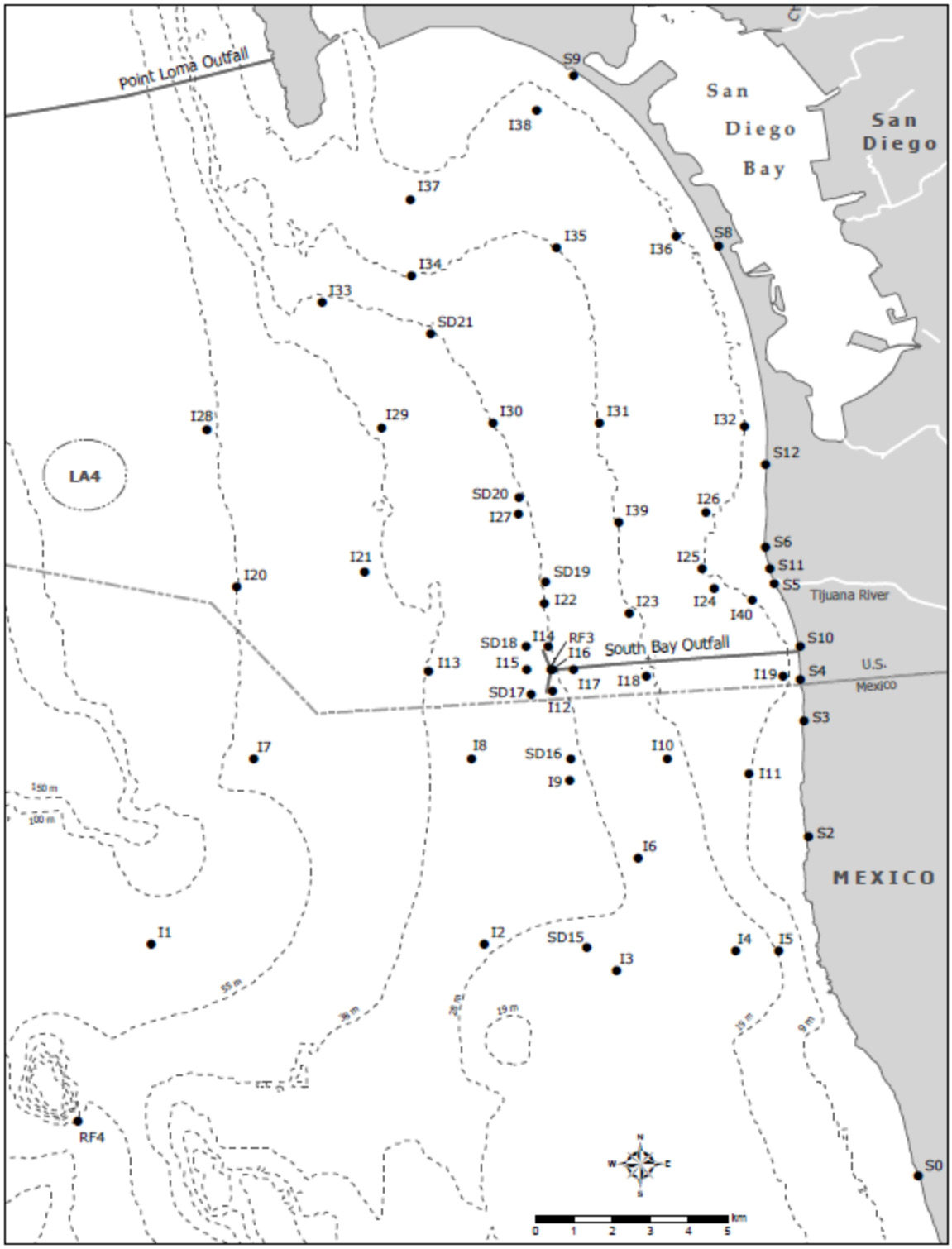


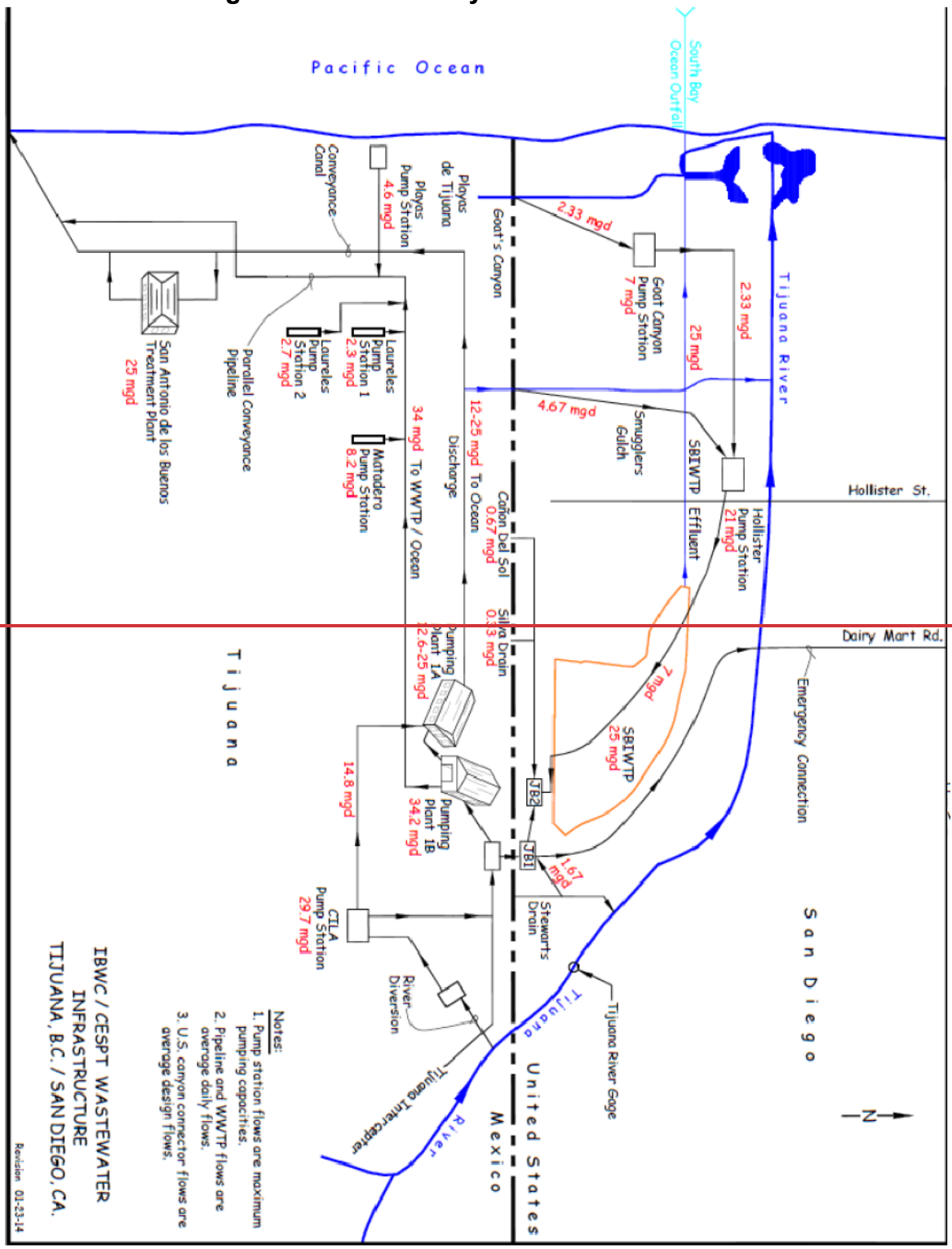
**Figure 2. Tijuana River Valley Monitoring Locations**

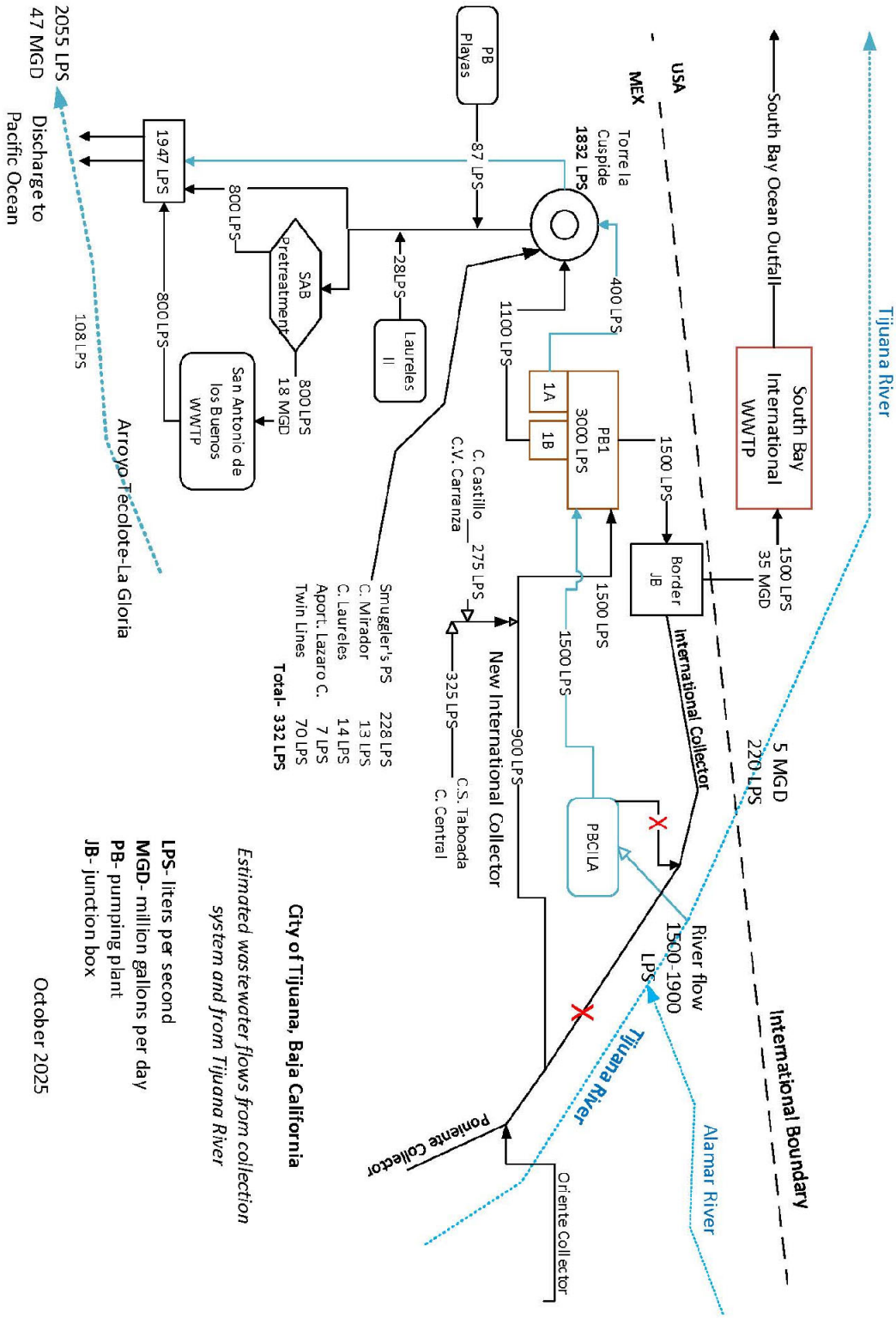
**Figure 3. Ocean Outfall Monitoring Locations and Shoreline**



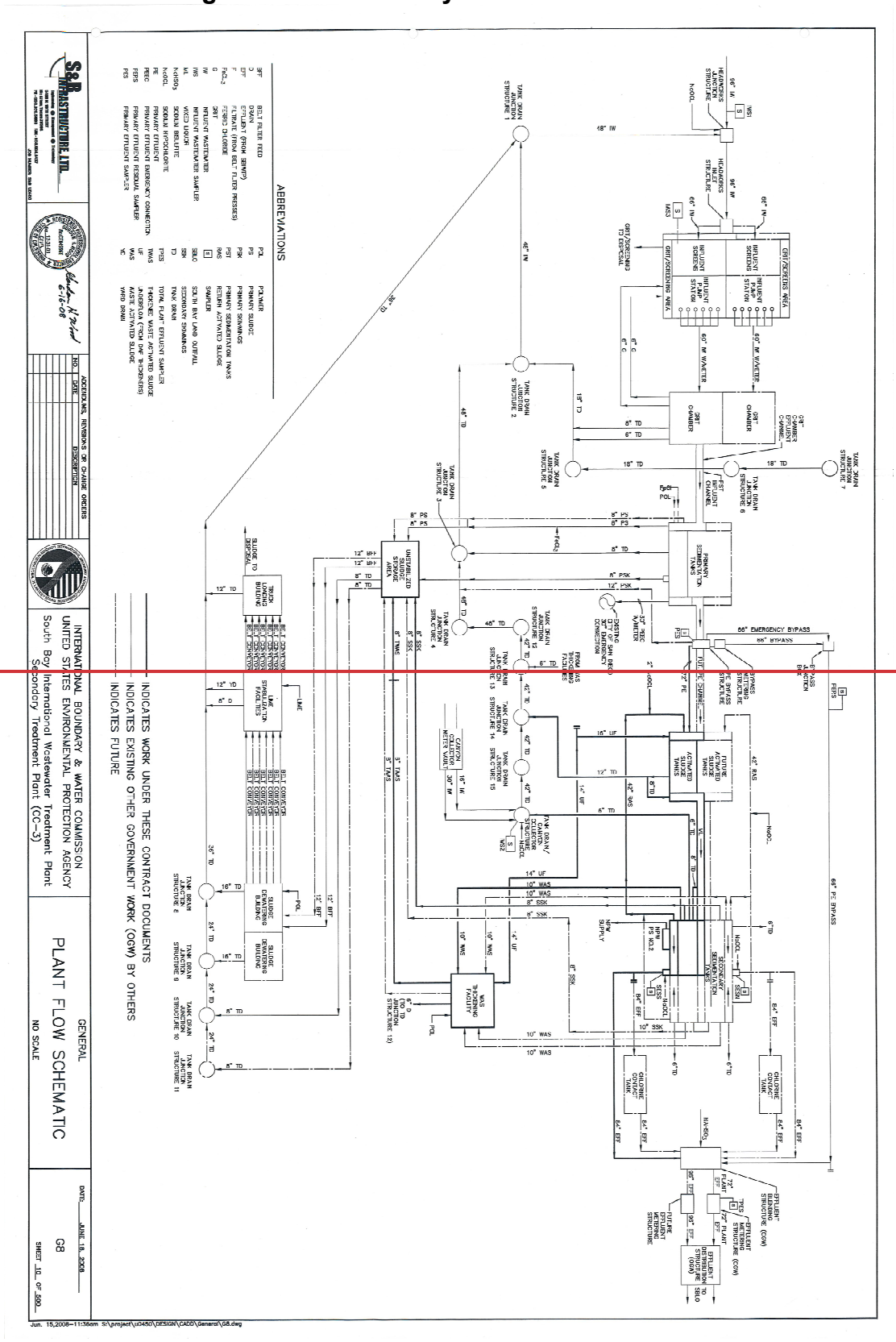
## Attachment C – Flow Schematics

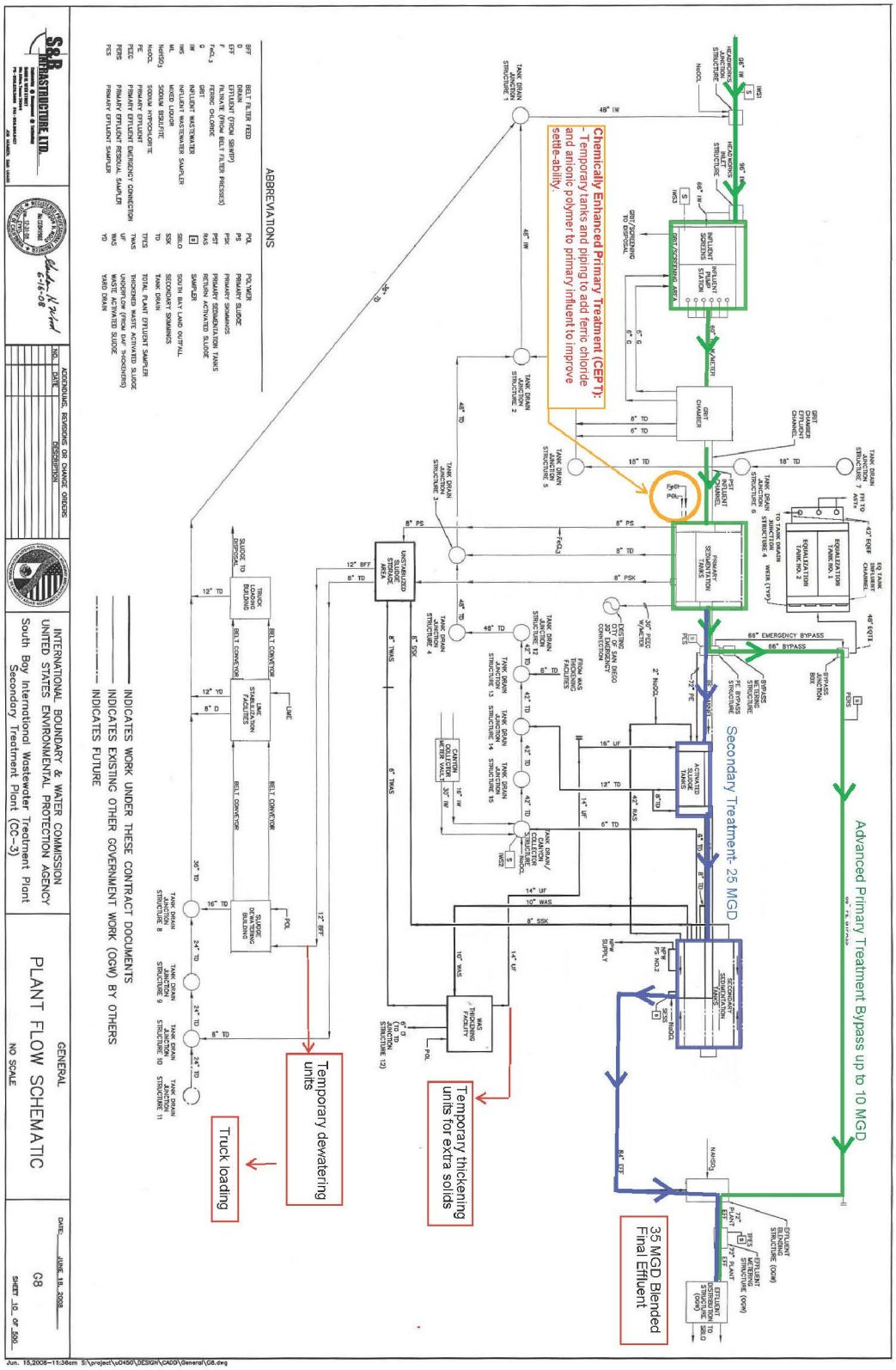
### Figure 4. Collection System Flow Schematic




Tijuana River
South Bay Ocean Outfall
USA
MEX
South Bay International WWTP
1500 LPS
35 MGD
5 MGD
220 LPS
International Boundary
PB Playas
87 LPS
Torre la Cuspide
1832 LPS
400 LPS
1100 LPS
1A
1B
PB1
3000 LPS
1500 LPS
Border JB
International Collector
1947 LPS
800 LPS
SAB Pretreatment
28LPS
Laureles II
800 LPS
18 MGD
San Antonio de los Buenos WWTP
2055 LPS
47 MGD
Discharge to Pacific Ocean
108 LPS
Arroyo Tecolote-La Gloria
C. Castillo
C.V. Carranza
275 LPS
Smuggler's PS 228 LPS
C. Mirador 13 LPS
C. Laureles 14 LPS
Aport. Lazaro C. 7 LPS
Twin Lines 70 LPS
Total- 332 LPS
New International Collector
900 LPS
325 LPS
C.S. Taboada
C. Central
PBC ILA
River flow 1500-1900 LPS
Tijuana River
Alamar River
Pontiente Collector
Oriente Collector
City of Tijuana, Baja California
Estimated wastewater flows from collection system and from Tijuana River
LPS- liters per second
MGD- million gallons per day
PB- pumping plant
JB- junction box
October 2025

## Figure 5. Treatment System Flow Schematic




Chemically Enhanced Primary Treatment (CEPT):
- Temporary tanks and piping to add ferric chloride and anionic polymer to primary influent to improve settle-ability.
Secondary Treatment: 25 MGD
Advanced Primary Treatment Bypass up to 10 MGD
Temporary dewatering units
Temporary thickening units for extra solids
Truck loading
35 MGD Blended Final Effluent
INTERNATIONAL BOUNDARY & WATER COMMISSION
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
South Bay International Wastewater Treatment Plant
Secondary Treatment Plant (CC-3)
PLANT FLOW SCHEMATIC
GENERAL
NO SCALE
G8
JUNE 18, 2008

# Attachment D – Standard Provisions

## 1. Standard Provisions – Permit Compliance

### 1.1 Duty to Comply

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

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 California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), State Water Resources Control Board (State Water Board), United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 United States Code (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 I.G.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 2023, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (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 V.E below (24-hour notice). The notice shall be sent to the San Diego Water Board. As of December 2023, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR section 122.41(m)(3)(ii).)

## 1.8 Upset

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

### 2.1. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 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 either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR section 122.22(a)(3).).

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) in this Order. (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, 2023, 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 not subject to effluent limitations in this Order. (40 CFR section 122.41(l)(1)(ii).)

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

Wastewater Treatment Plants– Wastewater treatment plants shall provide adequate notice to the San Diego Water Board of the following:

7.1. Any new introduction of pollutants into the wastewater treatment plant from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants; and

7.2 Any substantial change in the volume or character of pollutants being introduced into that wastewater treatment plant by a source introducing pollutants into the wastewater treatment plant at the time of adoption of this Order.

7.3 Adequate notice shall include information on the quality and quantity of effluent introduced into the wastewater treatment plant as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the wastewater treatment plant.

# Attachment E – Monitoring and Reporting Program (MRP)

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# ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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

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

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

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

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

(1) Core monitoring consists of the basic site-specific monitoring necessary to ensure consistency with influent action levels and measure compliance with individual effluent limits, and/or impacts to receiving water quality. Core monitoring is typically conducted at headworks, at the outfall prior to commingling with other discharges, and in the immediate vicinity of the discharge by examining local scale spatial effects.

(2) Regional monitoring provides information necessary to make assessments over large areas and serves to evaluate cumulative effects of all anthropogenic inputs. Regional monitoring data also assists in the interpretation of core monitoring studies. In the event that a regional monitoring effort takes place during the permit cycle in which the MRP does not specifically address regional monitoring, the San Diego Water Board may allow relief from aspects of core monitoring components in order to encourage participation pursuant to section 5 of this MRP.

(3) Special studies are directed monitoring efforts designed in response to specific management or research questions identified through either core or regional monitoring programs. Often, they are used to help understand core or regional monitoring results where a specific environmental process is not well understood, or to address unique issues of local importance.

## 1. General Monitoring Provisions

1.1. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitoring 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. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The flow measurement devices shall be installed, calibrated at least once per year (i.e., no more than 12 months between calibrations) or more frequently, and maintained to ensure that the accuracy of the measurement is consistent with the accepted capability of that type of device. The flow measurement devices selected shall be capable of measuring flows with a maximum deviation of less than ±5 percent from true discharge rates throughout the range of expected discharge volumes.

1.3. Monitoring must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved at 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act* as amended, or an alternative test procedure (ATP) approved by USEPA, or by the San Diego Water Board when there are no methods specified for a parameter 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 or equivalent analytical test methods validated for intended use and approved by

the Executive Officer. The laboratory must include quality assurance/quality control data (QA/QC) 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: https://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml.

1.5. Records of monitoring information shall include information required under Standard Provisions (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. A similar frequency shall be maintained for analyzing spiked samples. The Discharger should have a success rate equal or greater than 80 percent.

1.7. When requested by USEPA or the San Diego Water Board, the Discharger shall participate in the NPDES Discharge Monitoring Report QA (DMR-QA) performance study. If the DMR-QA is not requested, the Discharger shall submit the most recent Water Pollution Performance Evaluation Study. The Discharger shall ensure that the results of the DMR-QA Study or the most recent Water Pollution Performance Evaluation Study are submitted annually by December 31 to the State Water Resources Control Board (State Water Board) at the following address:

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

1.8. Analysis for toxic pollutants, including chronic toxicity, with effluent limitations or performance goals based on water quality objectives and criteria of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) and the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) shall be conducted in accordance with procedures described in the Ocean Plan and restated in this MRP, unless otherwise noted.

1.9. 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 MLs specified in the Appendix II of the Ocean Plan, or otherwise approved by USEPA and authorized by the San Diego Water Board. If no authorized ML value is below the effluent limitation or performance goal, then the Discharger shall select the lowest ML value and its associated analytical method, which may be above the effluent limitation or performance goal. If the Ocean Plan does not include an ML for a parameter, the Discharger shall ensure the method detection limit (MDL) is

consistent with the MDL provided in the method approved under 40 CFR part 136.

## 2. Monitoring Locations

The Discharger shall establish the following monitoring locations to demonstrate consistency with influent action levels and compliance with the effluent limitations, discharge specifications, and other requirements in this Order. The north latitude and west longitude information in Table E- 1 are approximate for administrative purposes.

**Table E- 1. Monitoring Station Locations [1]**

| Discharge Point Name | Monitoring Location Name | Type of Monitoring Location | Monitoring Location Description [2] |
|---|---|---|---|
| -- | INF-001 | Influent | At a location where all influent flows to South Bay International Wastewater Treatment Plant (SBIWTP) are accounted for in monitoring events; upstream of any in-plant return flows; and where representative samples of influent can be collected. |
| 001 | EFF-001 | Effluent | Downstream of any in-plant return flows at the SBIWTP where representative samples of effluent treated at the Facility can be collected, prior to commingling with other discharges contributing to the South Bay Ocean Outfall (SBOO). |
| -- | S-0 [3] | Shoreline Station | Latitude: 32°25.148'N; Longitude: 117°05.837'W<br>Mexico (Southernmost location) |
| -- | S-2 [3] | Shoreline Station | Latitude: 32°29.922'N; Longitude: 117°07.380'W<br>Mexico (Beach south of El Vigia Restaurant) |
| -- | S-3 [3] | Shoreline Station | Latitude: 32°31.542'N; Longitude: 117°07.440'W<br>Mexico (Beach at end of existing road of Playas de Tijuana) |
| -- | S-4 | Shoreline Station | Latitude: 32°32.183'N; Longitude: 117°07.4605'W<br>U.S. (Beach just north of the border fence) |
| -- | S-5 | Shoreline Station | Latitude: 32°33.1489'N; Longitude: 117°07.6539'W<br>U.S. (Beach north of mouth of Tijuana River) |

| Discharge Point Name | Monitoring Location Name | Type of Monitoring Location | Monitoring Location Description [2] |
|---|---|---|---|
| -- | S-6 | Shoreline Station | Latitude: 32°33.978'N; Longitude: 117°07.980'W<br>U.S. (Beach at end of Seacoast Drive) |
| -- | S-8 | Shoreline Station | Latitude: 32°38.208'N; Longitude: 117°08.640'W<br>U.S. (Silver Strand State Beach, Area 4 West of Coronado Cays) |
| -- | S-9 | Shoreline Station | Latitude: 32°40.620'N; Longitude: 117°10.680'W<br>U.S. (Beach at end of Avenida Del Sol seaward of Hotel Del Coronado) |
| -- | S-10 | Shoreline Station | Latitude: 32°32.598'N; Longitude: 117°07.500'W<br>U.S. (Beach at the terminus of Monument Road) |
| -- | S-11 | Shoreline Station | Latitude: 32°33.678'N; Longitude: 117°07.920'W<br>U.S.<br>(Beach approximately ¾ miles north of the mouth of the Tijuana River) |
| -- | S-12 | Shoreline Station | Latitude: 32°35.142'N; Longitude: 117°07.980'W<br>U.S. (Beach at the end of Carnation Street) |
| -- | I-1 | Offshore Station | Latitude: 32°28.400'N; Longitude: 117°16.620'W; Depth: 198 ft (60 m) |
| -- | I-2 | Offshore Station | Latitude: 32°28.400'N; Longitude: 117°11.940'W; Depth: 106 ft (32 m) |
| -- | I-3 [4] | Offshore Station | Latitude: 32°28.020'N; Longitude: 117°10.080'W; Depth: 89 ft (27 m) |
| -- | I-4 | Offshore Station | Latitude: 32°28.300'N; Longitude: 117°08.400'W; Depth: 59 ft (18 m) |
| -- | I-5 [5] | Offshore Station | Latitude: 32°28.300'N; Longitude: 117°07.800'W; Depth: 46 ft (14 m) |
| -- | I-6 | Offshore Station | Latitude: 32°29.610'N; Longitude: 117°09.780'W; Depth: 86 ft (26 m) |
| -- | I-7 [6] | Offshore Station | Latitude: 32°31.000'N; Longitude: 117°15.180'W; Depth: 172 ft (52 m) |
| -- | I-8 [7] | Offshore Station | Latitude: 32°31.000'N; Longitude: 117°12.120'W; Depth: 118 ft (36 m) |
| -- | I-9 [4] | Offshore Station | Latitude: 32°30.700'N; Longitude: 117°10.740'W; Depth: 96 ft (29 m) |

| Discharge Point Name | Monitoring Location Name | Type of Monitoring Location | Monitoring Location Description [2] |
|---|---|---|---|
| -- | I-10 [8] | Offshore Station | Latitude: 32°31.000'N; Longitude: 117°09.360'W; Depth: 63 ft (19 m) |
| -- | I-11[5] | Offshore Station | Latitude: 32°30.800'N; Longitude: 117°08.220'W; Depth: 43 ft (13 m) |
| -- | I-12 [4] | Offshore Station | Latitude: 32°31.970'N; Longitude: 117°10.980'W; Depth: 92 ft (28 m) |
| -- | I-13 [7] | Offshore Station | Latitude: 32°32.250'N; Longitude: 117°12.720'W; Depth: 125 ft (38 m) |
| -- | I-14 [4] | Offshore Station | Latitude: 32°32.580'N; Longitude: 117°11.040'W; Depth: 92 ft (28 m) |
| -- | I-15 | Offshore Station | Latitude: 32°32.270'N; Longitude: 117°11.340'W; Depth: 102 ft (31 m) |
| -- | I-16 [4] | Offshore Station | Latitude: 32°32.270'N; Longitude: 117°10.980'W; Depth: 92 ft (28 m) |
| -- | I-17 | Offshore Station | Latitude: 32°32.270'N; Longitude: 117°10.680'W; Depth: 83 ft (25 m) |
| -- | I-18 [8] | Offshore Station | Latitude: 32°32.170'N; Longitude: 117°09.660'W; Depth: 63 ft (19 m) |
| -- | I-20 [9] | Offshore Station | Latitude: 32°33.420'N; Longitude: 117°15.420'W; Depth: 182 ft (55 m) |
| -- | I-21[7] | Offshore Station | Latitude: 32°33.640'N; Longitude: 117°13.620'W; Depth: 135 ft (41 m) |
| -- | I-22 [4] | Offshore Station | Latitude: 32°33.200'N; Longitude: 117°11.100'W; Depth: 92 ft (28 m) |
| -- | I-23 [8] | Offshore Station | Latitude: 32°33.050'N; Longitude: 117°09.900'W; Depth: 69 ft (21 m) |
| -- | I-27 | Offshore Station | Latitude: 32°34.450'N; Longitude: 117°11.460'W; Depth: 92 ft (28 m) |
| -- | I-28 | Offshore Station | Latitude: 32°35.630'N; Longitude: 117°15.840'W; Depth: 182 ft (55 m) |
| -- | I-29 | Offshore Station | Latitude: 32°35.670'N; Longitude: 117°13.380'W; Depth: 125 ft (38 m) |
| -- | I-30 [4] | Offshore Station | Latitude: 32°35.720'N; Longitude: 117°11.820'W; Depth: 92 ft (28 m) |
| -- | I-31 | Offshore Station | Latitude: 32°35.730'N; Longitude: 117°10.320'W; Depth: 63 ft (19 m) |
| -- | I-33 [4] | Offshore Station | Latitude: 32°37.430'N; Longitude: 117°14.220'W; Depth: 99 ft (30 m) |
| -- | I-34 | Offshore Station | Latitude: 32°37.800'N; Longitude: 117°12.960'W; Depth: 63 ft (19 m) |

| Discharge Point Name | Monitoring Location Name | Type of Monitoring Location | Monitoring Location Description [2] |
|---|---|---|---|
| -- | I-35 | Offshore Station | Latitude: 32°38.200'N; Longitude: 117°10.920'W; Depth: 63 ft (19 m) |
| -- | I-36 [5] | Offshore Station | Latitude: 32°38.350'N; Longitude: 117°09.240'W; Depth: 36 ft (11 m) |
| -- | I-37 [5] | Offshore Station | Latitude: 32°38.880'N; Longitude: 117°12.980'W; Depth: 40 ft (12 m) |
| -- | I-38 [5] | Offshore Station | Latitude: 32°40.130'N; Longitude: 117°11.200'W; Depth: 36 ft (11 m) |
| -- | I-19 [5] | Kelp/ Nearshore Station | Latitude: 32°32.180'N; Longitude: 117°07.740'W; Depth: 33 ft (10 m) |
| -- | I-24 [5] | Kelp/ Nearshore Station | Latitude: 32°33.400'N; Longitude: 117°08.700'W; Depth: 36 ft (11 m) |
| -- | I-25 [10] | Kelp/ Nearshore Station | Latitude: 32°33.670'N; Longitude: 117°08.880'W; Depth: 30 ft (9 m) |
| -- | I-26 [10] | Kelp/ Nearshore Station | Latitude: 32°34.470'N; Longitude: 117°08.820'W; Depth: 30 ft (9 m) |
| -- | I-32 [10] | Kelp/ Nearshore Station | Latitude: 32°35.680'N; Longitude: 117°08.280'W; Depth: 33 ft (10 m) |
| -- | I-39 [8] | Kelp/ Nearshore Station | Latitude: 32°34.340'N; Longitude: 117°10.050'W; Depth: 59 ft (18 m) |
| -- | I-40 [10] | Kelp/ Nearshore Station | Latitude: 32°33.230'N; Longitude: 117°08.170'W; Depth: 33 ft (10 m) |
| -- | SD-15 | Trawl Station | Latitude: 32°28.350'N; Longitude: 117°10.500'W; Depth: 89 ft (27 m) |
| -- | SD-16 | Trawl Station | Latitude: 32°31.000'N; Longitude: 117°10.720'W; Depth: 89 ft (27 m) |
| -- | SD-17 | Trawl Station | Latitude: 32°31.918'N; Longitude: 117°11.280'W; Depth: 99 ft (30 m) |
| -- | SD-18 | Trawl Station | Latitude: 32°32.580'N; Longitude: 117°11.350'W; Depth: 99 ft (30 m) |
| -- | SD-19 | Trawl Station | Latitude: 32°33.500'N; Longitude: 117°11.080'W; Depth: 92 ft (28 m) |

| Discharge Point Name | Monitoring Location Name | Type of Monitoring Location | Monitoring Location Description [2] |
|---|---|---|---|
| -- | SD-20 | Trawl Station | Latitude: 32°34.680'N; Longitude: 117°11.450'W; Depth: 96 ft (29 m) |
| -- | SD-21 | Trawl Station | Latitude: 32°36.990'N; Longitude: 117°12.690'W; Depth: 96 ft (29 m) |
| -- | RF-3 | Rig Fishing Station | Latitude: 32°32.270'N; Longitude: 117°11.000'W; Depth: 89 ft (27 m) |
| -- | RF-4 | Rig Fishing Station | Latitude: 32°25.910'N; Longitude: 117°17.655'W; Depth: 89 ft (27 m) |
| -- | TRV-1 | Tijuana River Valley Station | Dairy Mart Bridge; Freshwater downstream station; approximate existing sampling station latitude and longitude to be provided by USIBWC |
| -- | TRV-2 | Tijuana River Valley Station | Stewart's Drain; Freshwater canyon collector station; Latitude: 32°32.4282'N; Longitude: 117°3.4698'W |
| -- | TRV-3 | Tijuana River Valley Station | Canyon del Sol; Freshwater canyon collector station; Latitude: 32°32.3502'N; Longitude: 117°4.1197'W |
| -- | TRV-4 | Tijuana River Valley Station | Silva Drain; Freshwater canyon collector station; Latitude: 32°32.3677'N; Longitude: 117°3.924'W |
| -- | TRV-5 | Tijuana River Valley Station | Smugglers Gulch; Freshwater canyon collector station; Latitude: 32°32.388'N; Longitude: 117°5.214'W |
| -- | TRV-6 | Tijuana River Valley Station | Goat Canyon; Freshwater canyon collector station; Latitude: 32°32.22'N; Longitude: 117°5.9587'W |
| -- | TRV-7 | Tijuana River Valley Station | Tijuana River Mouth; Saline or brackish/estuarine downstream station; Latitude: 32°33.1362'N; Longitude: 117°7.5677'W |

Notes for Table E- 1

[1] Monitoring at locations in Mexico is dependent on the approval of the Mexico government. Monitoring at these locations is not required if the Mexico government does not grant permission to enter and sample Mexico waters. In the event that the Mexico government does not grant permission to conduct the monitoring, the Discharger shall notify the San Diego Water Board in writing. Monitoring at locations in Mexico is needed to ensure representative sampling of the discharge's impact on water quality and beneficial uses.

[2] The north latitude and west longitude information are approximate for administrative purposes.

[3] Samples at shoreline stations S-0, S-2, and S-3 in Mexico are collected by either Comision Internacional de Limites y Aguas (CILA) or Comsion Estatal de Servicios Publicos de Tijuana (CESPT) and provided to the Discharger for sample analysis in the United States. Monitoring at these locations is recommended and requested to ensure representative sampling of the discharge's impact on water quality and beneficial uses. Failure to monitor at these locations is not a violation of the Order.

[4] Discrete depths for total and fecal coliform, and enterococci (collectively, fecal indicator bacteria) samples include: 2m, 18m, and 27m.

[5] Discrete depths for fecal indicator bacteria samples include: 2m, 6m, and 11m.

[6] Discrete depths for fecal indicator bacteria samples include: 2m, 18m, and 52m.

[7] Discrete depths for fecal indicator bacteria samples include: 2m, 18m, and 37m.

[8] Discrete depths for fecal indicator bacteria samples include: 2m, 12m, and 18m.

[9] Discrete depths for fecal indicator bacteria samples include: 2m, 18m, and 55m.

[10] Discrete depths for fecal indicator bacteria samples include: 2m, 6m, and 9m.

## 3. Core Monitoring Requirements

### 3.1. Influent Monitoring Requirements

Influent monitoring is the collection and analysis of samples or measurements of wastewater prior to the treatment processes.

Influent monitoring of a wastewater stream prior to entering the treatment plant is necessary to address the following questions:

(1) Is the source control program effectively controlling pollutant loads from industrial facilities?
(2) What is the frequency of unexpected industrial discharges (or pollutants loads) which can cause or contribute to an upset in the wastewater process?
(3) Is the influent inhibiting or disrupting the SBIWTP, its treatment processes or operations, or its sludge processes, use, or disposal?
(4) Is the SBIWTP complying with permit conditions including, but not limited to, influent action levels, and biochemical oxygen demand (5-day @ 20 °C) ($BOD_5$) and total suspended solids (TSS) percent removal limitations?

3.1.1. The Discharger shall monitor the influent at monitoring location INF-001 as follows:

**Table E- 2. Influent Monitoring at Monitoring Location INF-001 [1]**

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Flow | Million gallons per day (MGD) | Recorder/ Totalizer | Continuous [2] | -- |
| 5-day Carbonaceous Biochemical Oxygen Demand @ 20°C ($CBOD_5$) | Milligram per liter (mg/L) | 24-hr Composite | 1/Day [3][4] | [5] |
| 5-day Biochemical Oxygen Demand @ 20°C ($BOD_5$) | mg/L | 24-hr Composite | 1/Day [3][4] | [5] |
| Total Suspended Solids (TSS) | mg/L | 24-hr Composite | 1/Day [3][4] | [5] |
| Volatile Suspended Solids | mg/L | 24-hr Composite | 1/Day [3][4] | [5] |
| Temperature | °F | Grab | 1/Day [4] | [5] |
| Total Dissolved Solids (TDS) | mg/L | 24-hr Composite | 1/Week [3] | [5] |
| Floating Particulates | mg/L | 24-hr Composite | 1/Week [3] | [5] |
| Grease and Oil | mg/L | Grab | 1/Week [3][6] | [5] |
| Settleable Solids | ml/L | Grab | 1/Week [6] | [5] |
| Turbidity | Nephelometric turbidity unit (NTU) | 24-hr Composite | 1/Week [6] | [5] |
| pH | Standard units | Grab | 1/Week [6] | [5] |
| Arsenic, Total Recoverable | Microgram per liter (µg/L) | 24-hr Composite | 1/Week [3][6] | [5] |
| Cadmium, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Chromium (VI), Total Recoverable [7] | µg/L | 24-hr Composite | 1/Week [3][6] | [5][7] |
| Copper, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Lead, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Mercury, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Nickel, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Selenium, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Silver, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Zinc, Total Recoverable | µg/L | 24-hr Composite | 1/Week [3][6] | [5] |
| Cyanide, Total | µg/L | 24-hr Composite | 1/Week [3][6] | [5][8] |
| Ammonia (expressed as nitrogen) | mg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| Phenolic Compounds (nonchlorinated) | µg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| Phenolic Compounds (chlorinated) | µg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| Endosulfan | µg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| Endrin | µg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| HCH [1] | µg/L | 24-hr Composite | 1/Month [3][6] | [5] |
| Radioactivity | Picocuries per liter (pCi/L) | 24-hr Composite | 1/Month [3][6] | [5] |
| Acrolein | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Antimony, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Bis (2-chloroethoxy) Methane | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Bis (2-chloroisopropyl) Ether | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Chlorobenzene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Chromium (III), Total Recoverable [7] | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5][7] |
| Di-n-butyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Dichlorobenzenes | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Diethyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Dimethyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 4,6-dinitro-2-methylphenol | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| 2,4-dinitrophenol | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Ethylbenzene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Fluoranthene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Hexachlorocyclopentadiene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Nitrobenzene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Thallium, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Toluene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Tributyltin | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 1,1,1-trichloroethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Acrylonitrile | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Aldrin | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Benzene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Benzidine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Beryllium, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Bis (2-chloroethyl) Ether | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Bis (2-ethlyhexyl) Phthalate | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Carbon Tetrachloride | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Chlordane | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Chlorodibromomethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Chloroform | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Dichlorodiphenyltrichloroethane (DDT) | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 1,4-dichlorobenzene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| 3,3'-dichlorobenzidine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| 1,2-dichloroethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| 1,1-dichloroethylene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Dichlorobromomethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Dichloromethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| 1,3-dichloropropene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Dieldrin | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 2,4-dinitrotoluene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 1,2-diphenylhydrazine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Halomethanes | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Heptachlor | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Heptachlor Epoxide | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Hexachlorobenzene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Hexachlorobutadiene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Hexachloroethane | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Isophorone | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| N-nitrosodimethylamine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| N-nitrosodi-N-propylamine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| N-nitrosodiphenylamine | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Polynuclear Aromatic Hydrocarbons (PAHs) | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Polychlorinated Biphenyls (PCBs) | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| TCDD equivalents | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| 1,1,2,2-tetrachloroethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| Tetrachloroethylene | µg/L | Grab | 1/Quarter [3][6] | [5] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Toxaphene | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Trichloroethylene | µg/L | Grab | 1/Quarter [3][6] | [5] |
| 1,1,2-trichloroethane | µg/L | Grab | 1/Quarter [3][6] | [5] |
| 2,4,6-trichlorophenol | µg/L | 24-hr Composite | 1/Quarter [3][6] | [5] |
| Vinyl Chloride | µg/L | Grab | 1/Quarter [3][6] | [5] |

Notes for Table E- 2

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

[2] Report the total daily influent flow and the monthly average influent flow.

[3] The Discharger shall calculate and report the daily mass influent rate of the parameter for each sample taken. The mass influent rate shall be calculated in accordance with section 7.12 of this Order.

[4] Five days per week except seven days per week for at least one week during July or August or each year.

[5] As required under 40 CFR part 136.

[6] The minimum frequency of monitoring for this parameter is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the applicable influent action levels specified in this Order. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this parameter are below all applicable influent action levels specified in this Order.

[7] The Discharger may, at their option, monitor for total recoverable chromium in lieu of total recoverable chromium (III) or total recoverable chromium (VI).

[8] If the Discharger can demonstrate to the satisfaction of the San Diego Water Board (subject to approval of an ATP by USEPA) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, cyanide 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 shall be comparable to that achieved by the approved method in 40 CFR part 136, as revised May 14, 1999.

### 3.2. Effluent Monitoring Requirements

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

Effluent monitoring is necessary to address the following questions:

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

3.2.1. The Discharger shall monitor the effluent at monitoring location EFF-001 as follows:

**Table E- 3. Effluent Monitoring at Monitoring Location EFF-001 [1]**

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Flow | MGD | Recorder/ Totalizer | Continuous [2] | -- |
| $CBOD_5$ | mg/L | 24-hr Composite | 1/Day [3][4][5] | [6] |
| $BOD_5$ | mg/L | 24-hr Composite | 1/Day [3][4] | [6] |
| TSS | mg/L | 24-hr Composite | 1/Day [3][4][5] | [6] |
| pH | Standard units | Grab | 1/Day [3] | [6] |
| Oil and Grease | mg/L | Grab | 1/Week [4][7] | [6] |
| Settleable Solids | ml/L | Grab | 1/Day [3] | [6] |
| Turbidity | NTU | 24-hr Composite | 1/Day [3] | [6] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Dissolved Oxygen | mg/L | Grab | 1/Week [7] | [6] |
| Temperature | °C | Grab | 1/Day [3] | [6] |
| Volatile Suspended Solids | mg/L | 24-hr Composite | 1/Day [3] | [6] |
| Total Dissolved Solids | mg/L | 24-hr Composite | 1/Day [3] | [6] |
| Floating Particulates | mg/L | 24-hr Composite | 1/Day [3] | [6] |
| Fecal Coliform | Colony Forming Units (CFU) /100 mL | Grab | [8] | [6] |
| Enterococci | CFU/100 mL | Grab | [8] | [6] |
| Arsenic, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Cadmium, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Chromium (VI), Total Recoverable [9] | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Copper, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Lead, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Mercury, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Nickel, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Selenium, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Silver, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Zinc, Total Recoverable | µg/L | 24-hr Composite | 1/Week [4][7] | [6] |
| Cyanide, Total | µg/L | 24-hr Composite | 1/Week [4][7] | [6][10] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Total Residual Chlorine | µg/L | Grab | 1/Day [4][11] | [6] |
| Ammonia (expressed as nitrogen) | mg/L | 24-hr Composite or Grab | 1/Month [4][7] | [6] |
| Ammonium [12] | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Nitrogen, Total [14] | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Nitrogen, Total Organic [15] | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Nitrate | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Nitrite | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Phosphorus, Total (as P) | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Phosphate | mg/L | 24-hr Composite or Grab | 1/Month [4][13] | [6] |
| Carbon, Total Organic | mg/L | Grab | 1/Month [4][13] | [6] |
| Carbon, Dissolved Inorganic [16] | mg/L | Grab | 1/Month [4][13] | [6] |
| Iron, Dissolved | mg/L | Grab | 1/Month [4][13] | [6] |
| Alkalinity | mg/L $CaCO_3$ | Grab | 1/Month [4][13] | [6] |
| Salinity [17] | Parts per thousand (PPT) | Grab | 1/Month [4][13] | [6] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Chronic Toxicity | "Pass"/ "Fail" (Test of Significant Toxicity) [18] | 24-hr Composite | 1/Week | [6][19] |
| Phenolic Compounds (nonchlorinated) | µg/L | 24-hr Composite | 1/Month [4][7] | [6] |
| Phenolic Compounds (chlorinated) | µg/L | 24-hr Composite | 1/Month [4][7] | [6] |
| Endosulfan | µg/L | 24-hr Composite | 1/Month [4][7] | [6] |
| Endrin | µg/L | 24-hr Composite | 1/Month [4][7] | [6] |
| HCH | µg/L | 24-hr Composite | 1/Month [4][7] | [6] |
| Radioactivity | Picocuries per liter (pCi/L) | 24-hr Composite | 1/Month [4][7] | [6] |
| Acrolein | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Antimony, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Bis (2-chloroethoxy) Methane | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Bis (2-chloroisopropyl) Ether | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Chlorobenzene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Chromium (III), Total Recoverable [9] | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Di-n-butyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Dichlorobenzenes | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Diethyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Dimethyl Phthalate | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| 4,6-dinitro-2-methylphenol | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 2,4-dinitrophenol | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Ethylbenzene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Fluoranthene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Hexachlorocyclopentadiene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Nitrobenzene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Thallium, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Toluene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Tributyltin | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 1,1,1-trichloroethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Acrylonitrile | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Aldrin | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Benzene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Benzidine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Beryllium, Total Recoverable | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Bis (2-chloroethyl) Ether | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Bis (2-ethlyhexyl) Phthalate | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Carbon Tetrachloride | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Chlordane | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Chlorodibromomethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Chloroform | µg/L | Grab | 1/Quarter [4][7] | [6] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| Dichlorodiphenyltrichloroethane (DDT) | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 1,4-dichlorobenzene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| 3,3'-dichlorobenzidine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 1,2-dichloroethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| 1,1-dichloroethylene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Dichlorobromomethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Dichloromethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| 1,3-dichloropropene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Dieldrin | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 2,4-dinitrotoluene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 1,2-diphenylhydrazine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Halomethanes | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Heptachlor | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Heptachlor Epoxide | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Hexachlorobenzene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Hexachlorobutadiene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Hexachloroethane | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Isophorone | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| N-nitrosodimethylamine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| N-nitrosodi-N-propylamine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|---|---|---|---|
| N-nitrosodiphenylamine | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Polynuclear Aromatic Hydrocarbons (PAHs) | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Polychlorinated Biphenyls (PCBs) | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| TCDD equivalents | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| 1,1,2,2-tetrachloroethane | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Tetrachloroethylene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| Toxaphene | µg/L | 24-hr Composite | 1/Quarter [4][7] | [6] |
| Trichloroethylene | µg/L | Grab | 1/Quarter [4][7] | [6] |
| 1,1,2-trichloroethane | µg/L | Grab | 1/Quarter [4][7] | [6] |

Notes for Table E- 3

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

[2] Report the total daily effluent flow and the monthly average flow.

[3] The minimum sampling frequency shall be five days per week and shall increase to seven days per week for at least one week during July or August of each year.

[4] 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 7.12 of this Order.

[5] The Discharger shall calculate the monthly average percent removal for $CBOD_5$ and TSS in accordance with section 7.8 of this Order.

[6] Analytical test methods shall be consistent with the requirements of 40 CFR part 136. The analytical test methods for compliance determinations shall use MLs specified in Appendix II of the Ocean Plan. The Discharger shall select the MLs that are below the effluent limitation or performance goal. If no ML value is below the effluent limitation or performance goal, the Discharger shall select the lowest ML value and its associated analytical method, which may be above the effluent limitation or performance goal. If the Ocean Plan does not include an ML for a

parameter, the Discharger shall ensure the MDL is consistent with the MDL provided in the method approved under 40 CFR part 136.

[7] The minimum frequency of monitoring for this constituent is automatically increased to twice the minimum frequency specified, if any analysis for this constituent yields a result higher than the applicable effluent limitation or performance goal specified in this Order. The increased minimum frequency of monitoring shall remain in effect until the results of a minimum of four consecutive analyses for this constituent are below all applicable effluent limitations or performance goals specified in this Order.

[8] Monitoring is only required if the overall compliance rate with the receiving water limitations for bacterial characteristics at section 5.1.1 of the Order is below 90% within a rolling one-year period or a single monitoring location exceeds the bacteria receiving water limitations more than 50% of the time within a rolling one-year period for offshore monitoring locations and within a rolling quarterly period for kelp/nearshore monitoring locations, and the source of the exceedances is unknown. If required, the Discharger shall monitor the effluent the same day as the parameter is monitored in the receiving water.

[9] The Discharger may, at their option, monitor for total recoverable chromium in lieu of total recoverable chromium (III) or total recoverable chromium (VI).

[10] If a Discharger can demonstrate to the satisfaction of the San Diego Water Board (subject to approval of an ATP by USEPA) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, cyanide 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 shall be comparable to that achieved by the approved method in 40 CFR part 136, as revised May 14, 1999.

[11] Monitoring of total chlorine residual is only required on days when the Facility or any of its 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 shall be collected at the time when the concentration of total chlorine residual in the discharge would be expected to be greatest. The times of chlorine discharges on the days that samples are collected, and the time at which samples are collected, shall be reported.

[12] Ammonium may be determined by conversion from ammonia-nitrogen.

[13] The minimum sampling frequency shall be once per month for a period of one year. After one year, minimum sampling frequency may be reduced to once per quarter.

[14] Total nitrogen is the sum of total organic nitrogen, ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

[15] Total organic nitrogen can be derived by subtracting ammonia nitrogen from total kjeldahl nitrogen.
[16] Dissolved inorganic carbon may be estimated using results of pH and alkalinity.
[17] Salinity may be calculated using conductivity and temperature or an alternative method proposed by the Discharger and in concurrence with the San Diego Water Board.
[18] For compliance determination, chronic toxicity results shall be reported as "Pass" or "Fail". For monitoring purpose only, chronic toxicity results shall also include "Percent Effect."
[19] As specified in section 7.15 of this Order and section 3.3 of this MRP (Attachment E).

### 3.3. Whole Effluent Toxicity (WET) Testing Requirements

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

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

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

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

The chronic IWC is calculated by dividing 100 percent by the dilution ratio. The chronic toxicity IWC is 1.06 percent effluent.

#### 3.3.2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume of the effluent shall be collected to perform the required toxicity test. Sufficient sample volume shall also be collected during the Toxicity Reduction Evaluation (TRE) Tigger Phase 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.

### 3.3.3. Chronic Marine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity greater than one part per thousand (ppt), the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the Discharge IWC (1.06 percent effluent), in accordance with species and test methods in *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the San Diego Water Board is received.

3.3.3.1. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01). If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the Discharger shall conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.01), found in the third edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, 2002; Table IA, 40 CFR part 136). Additional species may be used by the Discharger if approved by the San Diego Water Board.

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

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

### 3.3.4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this Order's first required sample collection, or within 24 months of the most recent 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 is considered the most sensitive species for that suite. If only one species fails, then that species is considered the most sensitive species for that suite.

Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at the discharge IWC is considered the most sensitive species for that suite.

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

Species sensitivity rescreening is required every 24 months. 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 screening.

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

### 3.3.5. Quality Assurance (QA) and Additional Requirements

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

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

3.3.5.2. 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.

3.3.5.3. 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.

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

3.3.5.5. 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).

### 3.3.6. Preparation of an Initial Investigation Toxicity Reduction Evaluation Work Plan

The Discharger shall prepare and submit a copy of the Discharger's Initial Investigation TRE Work Plan to the San Diego Water Board for approval within 90 days of the effective date of this Order. If the San Diego Water Board does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal), or most current version, as guidance. The TRE Work Plan shall describe the steps that the Discharger intends to follow if toxicity is detected, and shall include, at a minimum:

3.3.6.1. 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;

3.3.6.2. 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 SBIWTP;

3.3.6.3. A description of how the Discharger will address toxicity effluent limitation exceedances;

3.3.6.4. Provisions for follow-up actions and communications with interested stakeholders to reduce toxicity. If the toxicity exceedance is attributable to sources in Mexico, follow-up actions to control the source of toxicity may include communications with international partners, such as Comisión Internacional de Límites y Aguas (CILA), Secretaría de Protección al Ambiente (SPA), Procuraduría Federal de Protección al Ambiente (PROFEPA), and/or Comisión Estatal de Servicios Públicos de Tijuana (CESPT); and

3.3.6.5. 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).

### 3.3.7. TRE Trigger Phase

Once the Discharger becomes aware of an exceedance of the chronic toxicity MDEL (i.e., the results to a chronic toxicity test indicate a "Fail"), the Discharger shall notify the San Diego Water Board and enter the TRE Trigger Phase. During the TRE Trigger Phase, the Discharger shall continue to conduct routine weekly monitoring for chronic toxicity as required in section 3.2.1 of this MRP. However, if the chronic toxicity MDEL is exceeded in any of the next six succeeding tests, the Discharger shall immediately implement the TRE Process conditions set forth below and notify the San Diego Water Board. In preparation for the TRE process and associated reporting, the results to the six succeeding chronic toxicity tests shall also be reported using the EC25.

### 3.3.8. TRE Process

During the TRE Process, minimum effluent monitoring shall resume and TST results ("Pass" or "Fail") for chronic toxicity tests shall be used to determine effluent compliance for the chronic toxicity MDEL.

3.3.8.1. Preparation and Implementation of Detailed TRE Work Plan. The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, *USEPA Manual Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 15 days of receiving validated results, submit to the San Diego Water Board a Detailed TRE Work Plan, which shall follow the Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. The TRE Work Plan shall include the following information, and comply with additional conditions set by the San Diego Water Board:

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

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

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

3.3.8.1.4. A schedule for follow-up actions and communications with interested stakeholders to reduce toxicity. For instances where the probable cause of the toxicity effluent limitation exceedances is attributable to sources in Mexico, the schedule may include follow-up actions and communications with interested stakeholders, such as CILA, SPA, PROFEPA, and CESPT, to address the source of toxicity.

3.3.8.2. TIE Implementation. The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005, 1991); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

3.3.8.3. 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.

3.3.8.4. 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.

3.3.8.5. 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. Upon approval from the San Diego Water Board, the TRE may be ended at any stage if routine monitoring finds there is no longer toxicity.

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

### 3.3.9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, see section 10 of

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

3.3.9.1. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-10.

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

3.3.9.3. 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.

3.3.9.4. TRE/TIE results. The San Diego Water Board shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TRE/TIE report, the Discharger shall provide status updates in the monthly SMRs, indicating which TRE/TIE steps are underway, which steps have been completed, and the estimated time to completion of the final TRE/TIE report. At a minimum, the TRE Final Report shall include the following:

3.3.9.4.1. A description of the probable source and cause of the toxicity effluent limitation exceedances (if known);

3.3.9.4.2. A summary of the findings including a tabulation, evaluation, and interpretation of the data generated;

3.3.9.4.3. Copies of any written request to interested stakeholders for assistance to reduce toxicity and any responses received. If the Discharger asserts that all or any portion of the documents are subject to an exemption from public disclosure, the Discharger shall submit the documents with those portions that are asserted to be exempt in redacted form. The Discharger shall identify the basis for the exemption from public disclosure.

3.3.9.4.4. A list of corrective actions taken or planned by the Discharger to reduce toxicity so that the Discharger can achieve consistent compliance with the toxicity effluent limitation of this Order and prevent recurrence of exceedances of the limitation. The San Diego Water Board recommends and requests the Discharger provide a list of correction actions taken or planned by interested stakeholders; and

3.3.9.4.5. If the exceedances of the toxicity effluent limitation have not been corrected, the anticipated time it is expected to continue and a time schedule for the steps planned to reduce, eliminate, and prevent recurrence of the exceedances.

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

3.3.9.6. 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.

3.3.9.7. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request from the San Diego Water Board.

**3.3.10. Reporting to Interested Stakeholders**

If the TRE Final Report determines that the toxicity exceedances were, or likely were, attributable to the introduction of pollutants into the SBIWTP from Mexico, then the Discharger shall provide a copy of the TRE Final Report to interested stakeholders within 30 days after completion of the TRE Final Report. For purposes of this section, interested stakeholders shall include individuals or entities that can assist in addressing the probable sources and causes of the toxicity exceedance and may include, but are not limited to, CILA, SPA, CESPT, U.S. Department of State, USEPA, and non-governmental organizations (NGOs). The Discharger shall request assistance from interested stakeholders in reducing, preventing, and eliminating the probable sources and causes of the toxicity exceedances. The San Diego Water Board requests that the Discharger provide a copy of the request to the San Diego Water Board. If the Discharger asserts that all or any portion of the documents are subject to an exemption from public disclosure, the Discharger shall submit the documents with those portions that are asserted to be exempt in redacted form. The Discharger shall identify the basis for the exemption from public disclosure.

**3.4. Land Discharge Monitoring Requirements – Not Applicable**

**3.5. Recycling Monitoring Requirements – Not Applicable**

**4. Ocean Receiving Water and Tijuana River Valley Monitoring Requirements**

The ocean receiving water monitoring requirements set forth below are designed to measure the effects of the South Bay Ocean Outfall (SBOO) discharge on the receiving ocean waters, including effects on coastal water quality, seafloor sediments, and marine life.

The overall ocean receiving water monitoring program is intended to answer the following questions:

(1) Does the receiving water meet water quality standards?

(2) Are the receiving water conditions getting better or worse over time?
(3) What is the relative contribution of the SBIWTP discharge to pollution in the receiving waters?
(4) What are the effects of the discharge on the receiving waters?

The ocean receiving water monitoring program is intended to document conditions, within the zone of initial dilution (ZID), within the waste field where initial dilution is completed, at reference stations, and at other areas beyond the ZID where discharge impacts might be reasonably expected.

The Tijuana River Valley monitoring program is intended to evaluate the water quality and beneficial use impacts of Canyon Collector Transboundary Flow Events on waters of the U.S. and/or State.

Receiving water monitoring in the vicinity of the SBOO and monitoring in the Tijuana River Valley shall be conducted as specified below. Station location, sampling, sample preservation, and analyses, when not specified, shall be by methods approved by the San Diego Water Board. Monitoring at locations in Mexico is dependent on the approval of the Mexico government. Monitoring is not required if the Mexico government does not grant permission to enter and sample Mexico waters. In the event that the Mexico government does not grant permission to conduct the monitoring, the Discharger shall notify the San Diego Water Board in writing. The purpose of the receiving water monitoring in Mexico is to ensure representative sampling of the discharge's impact on water quality and beneficial uses.

The monitoring program may be modified by the San Diego Water Board at any time. The Discharger may also submit a list of proposed changes with supporting rationale to these monitoring requirements that it considers to be appropriate to the San Diego Water Board for approval.

All receiving water monitoring shall be conducted in accordance with restrictions and requirements established by the State of California Department of Fish and Wildlife and this Order. During monitoring events, sample stations shall be located using a land-based microwave positioning system or a satellite positioning system such as global positioning system (GPS). If an alternate navigation system is proposed, its accuracy should be compared to that of microwave and satellite-based systems, and any compromises in accuracy shall be justified.

The ocean receiving water and sediment monitoring program for the SBOO may be conducted either individually or jointly with other dischargers to the SBOO.

In the event that the Discharger is unable to obtain a sample from a monitoring station(s) due to safety, legal, or other reasons, collection of samples at such station(s) can be omitted. If safe, the visual observations listed in footnote no. 2 to Table E-4 and footnote no. 3 to Table E-5 below shall still be recorded and reported in the monthly SMR for these stations at the time of the sample collection. If practicable, an effort should be made to return to the sampling station that was

omitted and collect the sample during safer conditions within the same reporting period. In the event that a monitoring location is omitted, the Discharger shall submit a statement to the San Diego Water Board containing, at a minimum, the following information:

- The monitoring station(s) that was omitted;
- The date the monitoring station was omitted; and
- A description of the circumstances for omitting the collection of data at the monitoring station.

## 4.1. Ocean Receiving Water Monitoring Program

### 4.1.1. Shoreline Water Quality Monitoring Requirements

As ocean surface waves come closer to shore they break, forming the foamy, bubbly surface called surf. The region of breaking waves defines the shoreline. See Attachment B for a map of the shoreline monitoring locations.

Monitoring of the shoreline is intended to answer the following questions:

(1) Does the effluent cause or contribute to an exceedance of the water quality standards in the receiving water?
(2) Does the effluent reach water contact zones or commercial shellfish beds?
(3) Are densities of bacteria in water contact areas below levels protective of public health?

4.1.1.1. Shoreline monitoring locations in the U.S. listed in Table E- 1 (i.e., monitoring locations S-4 through S-6, and S-8 through S-12) shall be monitored in accordance with Table E-4 below. The San Diego Water Board recommends and requests the Discharger apply these same requirements to shoreline monitoring locations in Mexico (i.e., monitoring locations S-0, S-2, and S-3).

**Table E- 4. Shoreline Water Quality Monitoring Requirements [1]**

| Parameter | Units | Sample Type | Sampling Frequency |
|---|---|---|---|
| Visual Observations | -- | Visual | [2][3] |
| Temperature | °C | Grab | 1/Week [3] |
| Total Coliform | CFU/100 ml | Grab | 1/Week [3] |
| Fecal Coliform | CFU/100 ml | Grab | 1/Week [3][4] |
| Enterococci | CFU/100 ml | Grab | 1/Week [3] |

Notes for Table E- 4

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

[2] Visual observations of the surface water conditions at the designated receiving water monitoring locations shall be conducted in such a manner as to enable the observer to describe and report the presence, if any, of floatables of sewage origin. Observations of wind (direction and speed), weather (cloudy, sunny, or rainy), direction of current, tidal conditions

(high or low), water color, discoloration, oil and grease, turbidity, and odor shall be recorded. These observations shall be taken whenever a sample is collected.

[3] Sampling shall be spaced equally throughout the month to the extent possible.

[4] The Discharger shall ensure five fecal coliform samples are collected within a 30-day period.

### 4.1.2. Offshore and Kelp/Nearshore Water Quality Monitoring Requirements

Offshore monitoring extends from south of the international border to Point Loma. See Attachment B for a map of the offshore and kelp/nearshore monitoring locations.

Offshore monitoring is necessary to answer the following questions:

(1) Is natural light significantly reduced at any point outside the ZID as a result of the discharge?
(2) Does the discharge cause a discoloration of the ocean surface?
(3) Does the discharge of oxygen demanding waste cause the dissolved oxygen concentration to be depressed at any time more than 10 percent from that which occurs naturally outside the ZID?
(4) Does the discharge of waste cause the pH to change at any time more than 0.2 standard units from that which occurs naturally outside the ZID?
(5) What is the error associated with the pH samples by the conductivity-temperature-depth (CTD) profiler?
(6) Is the aragonite saturation state at a level which is harmful to aquatic life?
(7) Do nutrients cause objectionable aquatic growth or degrade indigenous biota?
(8) Is fecal indicator bacteria present outside the zone of initial dilution? If so, is the bacteria human source?
(9) Is the wastewater plume encroaching upon receiving water areas used for swimming, surfing, diving, and shellfish harvesting?
(10) What is the fate of the discharge plume?

4.1.2.1. Offshore and kelp/nearshore monitoring locations listed in Table E- 1 (i.e., monitoring locations I-1 through I-40) shall be monitored as follows, unless noted otherwise:

**Table E- 5. Offshore and Kelp/Nearshore Water Quality Monitoring Requirements [1]**

| Parameter | Units | Sample Type | Offshore Sampling Frequency [2] | Kelp/Nearshore Sampling Frequency [2] |
|---|---|---|---|---|
| Visual Observations | -- | Visual | [3] | [3] |

| Parameter | Units | Sample Type | Offshore Sampling Frequency [2] | Kelp/Nearshore Sampling Frequency [2] |
|---|---|---|---|---|
| Temperature and Depth | °C, meters | Profile [4] | 1/Quarter | 1/Week |
| Salinity [5] | Parts per thousand (ppt) | Profile [4] | 1/Quarter | 1/Week |
| Dissolved Oxygen | mg/L | Profile [4] | 1/Quarter | 1/Week |
| Light Transmittance | Percent | Profile [4] | 1/Quarter | 1/Week |
| Chlorophyll a | µg/L | Profile [4] | 1/Quarter | 1/Week |
| pH | Units | Profile [4] | 1/Quarter | 1/Week |
| Spectrophotometric pH [6] | Units | Grab | 1/Quarter | Not Applicable |
| Alkalinity, Total [6] | mg/L $CaCO_3$ | Grab | 1/Quarter | Not Applicable |
| Ammonia (as N) [7] | mg/L | Grab or Profile [8] | 1/Quarter | 1/Quarter |
| Nitrogen, Total [7] | mg/L | Grab or Profile [8] | 1/Quarter | 1/Quarter |
| Total Coliform [9] | CFU/100 mL | Grab | 1/Quarter | 1/Week |
| Fecal Coliform [9] | CFU/100 mL | Grab | 1/Quarter | 1/Week [10] |
| *Enterococcus* [9] | CFU/100 mL | Grab | 1/Quarter | 1/Week |
| Human Marker HF183 [11] | Number of copies (molecules)/ 100 mL | Grab | [12] | [12] |

Notes for Table E- 5

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

[2] Quarterly receiving water monitoring results shall be submitted within the monthly SMR for the month in which the monitoring was conducted.

[3] Visual observations of the surface water conditions at the designated receiving water monitoring locations shall be conducted in such a manner as to enable the observer to describe and report the presence, if any, of floatables of sewage origin. Observations of wind (direction and speed), weather (cloudy, sunny, or rainy), direction of current, tidal conditions (high or low), water color, oil and grease, turbidity, and odor shall be recorded. These observations shall be taken whenever a sample is collected.

[4] Temperature, depth, dissolved oxygen, light transmittance, pH, salinity, and chlorophyll a profile data shall be measured throughout the entire water column using a CTD profiler during the quarterly and weekly sampling events at all 40 offshore and kelp/nearshore monitoring locations (i.e., monitoring locations I-1 to I-40). Depth profile measurements shall be obtained using multiple sensors to measure

parameters through the entire water column (from the surface to as close to the bottom as practicable).

[5] Salinity may be calculated using conductivity and temperature or an alternative method proposed by the Discharger and in concurrence with the San Diego Water Board.

[6] Monitoring shall be conducted as described in 4.1.2.3.

[7] Monitoring is not required while implementing Plume Tracking Program described in section 6.2 of this MRP.

[8] Samples shall be collected at the surface, near the thermocline, and bottom or by continuous profile.

[9] Total and fecal coliforms, and enterococcus shall be monitored at monitoring locations I-3, I-5, I-7 to I-14, I-16, I-18 to I-26, I-30, I-32, I-33, and I-36 to I-40 at the discrete depths specified for bacteria monitoring in Table E-1 of this MRP.

[10] The Discharger shall ensure five fecal coliform samples are collected within a rolling 30-day period.

[11] Human Marker HF183 monitoring is required only if the overall compliance rate with the receiving water limitations for bacterial characteristics at section 5.1.1 of this Order is below 90% within a rolling one-year period or a single monitoring location exceeds the bacteria receiving water limitations more than 50% of the time within a rolling one-year period for offshore monitoring locations and a rolling quarterly period for kelp/nearshore monitoring locations, and the source of the receiving water limitation exceedances is unknown.

[12] If required, the monitoring frequency and locations the Discharger shall collect samples for HF183 concurrently with samples collected for fecal coliform at the offshore and/or kelp/nearshore monitoring locations experiencing the bacteria receiving water limitation exceedances and other monitoring locations necessary to determine the source(s) of the elevated bacteria levels. Potential monitoring locations include, but is not limited to, I-3, I-5, I-7 to I-14, I-16, I-18 to I-26, I-30, I-32, I-33, and I-36 to I-40 at the discrete depths specified for bacteria monitoring in Table E-1 of this MRP. Samples shall be analyzed in accordance with section 4.1.2.2 of this MRP.

4.1.2.2. Human Marker HF183 Monitoring Requirements

The Human Marker HF183 (HF183) monitoring requirements specified below is required if the overall compliance rate with the receiving water limitations for bacterial characteristics at section 5.1.1 of this Order is below 90% within a rolling one-year period or a single monitoring location exceeds the bacteria receiving water limitations more than 50% of the time within a rolling one-year period for offshore monitoring locations and within a rolling quarterly period for kelp/nearshore monitoring locations, and the source of the exceedances is unknown. If the source of where the fecal contamination causing the bacteria receiving water limitation exceedances originated is

known (e.g., the Tijuana River, the discharge through the SBOO, or some other known source), the Discharger shall submit a written report to the San Diego Water Board describing the specific cause and source of the exceedances and if human fecal waste is the cause, a strategy for prioritizing the bacterial receiving water sites for remediation. If the San Diego Water Board concurs with the conclusions of the report, HF183 monitoring is not required. If HF183 monitoring is required, the San Diego Water Board will direct the Discharger in writing to implement the HF183 monitoring and development of a strategy for remediating the bacterial receiving water sites based on measured human fecal waste levels. The San Diego Water Board will provide the Discharger with a written explanation regarding the need for the information and the evidence that supports requiring the Discharger to provide the information. HF183 monitoring may be terminated once both the source of the bacteria exceedances is determined and the basis for the remediation strategy is determined to the satisfaction of the San Diego Water Board.

4.1.2.2.1. Sample Collection

If required, the Discharger shall collect samples for HF183 concurrently with samples collected for fecal coliform at the offshore and/or kelp/nearshore monitoring locations experiencing the bacteria receiving water limitation exceedances and other monitoring locations necessary to determine the source(s) of the elevated bacteria levels. Potential monitoring locations that may require concurrent HF183 monitoring include, but is not limited to, monitoring locations I-3, I-5, I-7 to I-14, I-16, I-18 to I-26, I-30, I-32, I-33, and I-36 to I-40 at the discrete depths specified for bacteria monitoring listed in Table E-1 of this MRP. Samples shall be collected in accordance with USEPA method 1696, or an alternative method proposed by the Discharger with comparable accuracy, unless the alternative method is not accepted by the San Diego Water Board. Samples shall be filtered through a membrane filter as soon as possible, but sample filtration shall be initiated no later than 6 hours after sample collection. Following filtration, the membrane filter shall be stored at -80 ºC for later analysis.

4.1.2.2.2. Sample Analysis

If a result for fecal coliform exceeds the single sample maximum receiving water limitation of 400 CFU per 100 mL (see section 5.1.1.1.1.2 of this Order), the Discharger shall analyze the HF183 sample that was collected concurrently with the fecal coliform sample that exceeded the receiving water limitation. Samples shall be analyzed in accordance with USEPA method 1696, the droplet digital polymerase chain reaction (ddPCR) method developed by the Southern California Coastal Waters Research Project (SCCWRP), or an alternative method proposed by the Discharger with comparable accuracy, unless the alternative method is not accepted

by the San Diego Water Board. If the Discharger proposes to use the ddPCR method, the Discharger shall submit a QA/QC procedure for acceptance by the San Diego Water Board. The Discharger shall follow all QA/QC procedures outlined in the method or as approved by the San Diego Water Board. If the results for fecal coliform are below receiving water limitations, the Discharger may discard the HF183 sample.

4.1.2.2.3. Sample Results (if applicable)

Sample results for HF183 shall be submitted with the monthly SMRs to the State Water Board's California Integrated Water Quality System (CIWQS) as an attachment. Using the results of the HF183 analysis, the Discharger shall report whether the exceedances of receiving water limitations for fecal indicator bacteria are due to human sources or some other source.

4.1.2.3. Total Alkalinity and Spectrophotometric pH Monitoring Requirements

Results for pH measured by spectrophotometric analysis shall be used to calibrate the pH results measured by CTD profiler. Samples for pH and total alkalinity shall be used to calculate aragonite saturation state.

4.1.2.3.1. Monitoring Locations and Sample Collection

Monitoring for spectrophotometric pH and total alkalinity shall be consistent with the methods described in *An evaluation of potentiometric pH sensors in coastal monitoring applications* (McLaughlin et al. 2017). The Discharger shall collect grab samples for spectrophotometric pH and alkalinity at the surface, thermocline, and bottom at offshore monitoring location I-1, and at surface and bottom at offshore monitoring locations I-21 and I-28. The Discharger shall collect a duplicate sample at the bottom at offshore monitoring location I-1 during each sampling event. For stations I-1, I-21, and I-28, grab samples shall be collected by Niskin bottles attached to the same device as the CTD used to collect profile samples. Water from the Niskin bottles shall be transferred to 500 mL Pyrex bottles and overfilled by a minimum of 250 mL leaving approximately 1% headspace. All bottles shall be fixed with approximately 120 µL of saturated mercury (II) chloride solution and stored at room temperature until analysis.

4.1.2.3.2. Sample Analysis

Samples for pH shall be measured using the spectrophotometric technique described in *An automated system for spectrophotometric seawater pH measurements* (Carter et al. 2013), estimating pH at 25 degrees Celsius on the total hydrogen ion scale using m-cresol purple dye indicator and pH calibration equations based on *Purification and characterization of meta-cresol purple for spectrophotometric seawater pH measurements* (Liu et al. 2011). Grab samples for total alkalinity shall be measured by a two-stage, potentiometric, and open-celled titration using coulometrically analyzed hydrochloric acid as described in *Reference material for oceanic $CO_2$*

*analysis: A method for the certification of total alkalinity* (Dickson et al. 2003). The Discharger shall use the spectrophotometric pH and total alkalinity results to calibrate and adjust the pH samples collected quarterly by CTD and calculate the aragonite saturation state. Calibration of pH and calculation of aragonite saturation state is only required for the kelp/nearshore monitoring locations once per quarter. Results for alkalinity, the calibrated pH, and aragonite saturation state shall be reported in the interim and biennial receiving water monitoring reports described in section 4.1.5 of this MRP. Due to laboratory delays, the results for the last quarter in the monitoring period may be excluded from the interim and/or biennial receiving water monitoring reports if the data are not available. If the results are not included in the interim and/or biennial receiving water monitoring report, the Discharger shall submit the results by email to SanDiego@waterboards.ca.gov.

### 4.1.3. Benthic Monitoring Requirements

Seafloor sediments integrate constituents that are discharged to the ocean. Most particles that come from the SBOO discharge, and any associated contaminants, will eventually settle to the seafloor where they are incorporated into the existing sediments. Sediments can accumulate these particles over the years until the point where sediment quality is degraded and beneficial uses are impaired.

Benthic organisms are strongly affected by sediment contaminant exposure because these organisms often live in continual direct contact with sediment/pore water, and many species ingest significant quantities of sediment as a source of nutrition. Because the benthos are dependent on their surroundings, they serve as a biological indicator that reflects the overall conditions of the aquatic environment.

The assessment of sediment quality with respect to sediment chemistry, sediment toxicity, and benthic community condition is necessary to answer the following questions:

(1) Is the dissolved sulfide concentration of waters in sediments significantly increased above that present under natural conditions?
(2) Is the concentration of substances set forth in Table 3 of the Ocean Plan for protection of marine aquatic life in marine sediments at levels which would degrade the benthic community?
(3) Is the concentration of organic pollutants in marine sediments at levels that would degrade the benthic community?
(4) Are benthic communities degraded as a result of the discharge?
(5) Is the sediment quality changing over time?

The assessment of sediment quality to evaluate potential effects of the SBOO discharge and compliance with narrative water quality standards specified in the Ocean Plan consist 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.

4.1.3.1. Sediment Assessment for Physical and Chemical Properties

4.1.3.1.1. Sediment Monitoring Locations and Frequency.

The sediment monitoring program is designed to assess spatial and temporal trends at the offshore monitoring locations and to assess benthic habitat condition in terms of physical and chemical composition (e.g., grain-size distribution, sediment chemistry). Sediment samples for assessment of sediment chemistry shall be collected twice per year during the winter (e.g., January) and summer (e.g., July) at 27 of the offshore monitoring locations listed in Table E-1, including 12 primary monitoring locations located along the outfall discharge depth contour (i.e., monitoring locations I-2, I-3, I-6, I-9, I-12, I-14, I-15, I-16, I-22, I-27, I-30, I-33) and 15 secondary monitoring locations located at other depths (i.e., monitoring locations I-1, I-4, I-7, I-8, I-10, I-13, I-18, I-20, I-21, I-23, I-28, I-29, I-31, I-34, I-35). At the discretion of the San Diego Water Board, the requirement for sampling the secondary monitoring locations may be relaxed to allow Discharger participation in Southern California Bight Regional Monitoring efforts, or to reallocate resources to accommodate approved Strategic Process Studies.

4.1.3.1.2. Sediment Sample Collection Methods

Sediment samples shall be taken using a 0.1-square meter modified Van Veen grab sampler. Samples for grain-size and chemical analyses shall be taken from the top two centimeters of the surface sediment. Sediment samples for physical and chemical properties shall be taken concurrently with and adjacent to (as much as possible) the sediment samples for toxicity and benthic community condition. Bulk sediment chemical analysis shall include at a minimum the set of constituents listed in Table E-6.

4.1.3.1.3. Sediment Chemistry Test Methods

Sediment chemistry is the measurement of the concentration of chemicals of concern in sediments. The chemistry line of evidence is used to assess the potential overall exposure risk to benthic organisms from pollutants in surficial sediments. Chemical analysis of sediment shall be conducted using USEPA-approved methods, methods developed by the National Oceanic and Atmospheric Administration's (NOAA's) National Status and Trends for Marine Environmental Quality, or methods developed in conjunction with the Southern California Bight Regional Monitoring Program. For chemical analysis of sediment, samples shall be reported on a dry weight basis.

4.1.3.1.4. Sediment Chemistry Parameters

Sediment monitoring for physical and chemical properties shall be conducted at the 27 offshore monitoring locations listed in section 4.1.3.1.1 of this MRP and in Table E- 1 (i.e., monitoring locations I-1 through I-4, I-6 though I-10, I-12 though I-16, I-18, I-20 through I-23, I-27 through I-31, and I-33 through I-35) for the parameters identified in Table E- 6.

**Table E- 6. List of Parameters to Characterize Sediment Contamination Exposure and Effect [1]**

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| Sediment Grain Size | Micrometer (µm) | Grab | 2/Year |
| Total Organic Carbon | Percent | Grab | 2/Year |
| Total Nitrogen | Percent | Grab | 2/Year |
| Aluminum | Milligram/kilogram (mg/kg) | Grab | 2/Year |
| Antimony | mg/kg | Grab | 2/Year |
| Arsenic | mg/kg | Grab | 2/Year |
| Barium | mg/kg | Grab | 2/Year |
| Beryllium | mg/kg | Grab | 2/Year |
| Cadmium | mg/kg | Grab | 2/Year |
| Chromium | mg/kg | Grab | 2/Year |
| Copper | mg/kg | Grab | 2/Year |
| Iron | mg/kg | Grab | 2/Year |
| Lead | mg/kg | Grab | 2/Year |
| Mercury | mg/kg | Grab | 2/Year |
| Nickel | mg/kg | Grab | 2/Year |
| Selenium | mg/kg | Grab | 2/Year |
| Silver | mg/kg | Grab | 2/Year |
| Zinc | mg/kg | Grab | 2/Year |
| BDE-17 [2] | Nanogram/kilogram (ng/kg) | Grab | 2/Year |
| BDE-28 [2] | ng/kg | Grab | 2/Year |
| BDE-47 [2] | ng/kg | Grab | 2/Year |
| BDE-49 [2] | ng/kg | Grab | 2/Year |
| BDE-66 [2] | ng/kg | Grab | 2/Year |
| BDE-85 [2] | ng/kg | Grab | 2/Year |
| BDE-99 [2] | ng/kg | Grab | 2/Year |
| BDE-100 [2] | ng/kg | Grab | 2/Year |
| BDE-138 [2] | ng/kg | Grab | 2/Year |
| BDE-153 [2] | ng/kg | Grab | 2/Year |
| BDE-154 [2] | ng/kg | Grab | 2/Year |
| BDE-183 [2] | ng/kg | Grab | 2/Year |
| BDE-190 [2] | ng/kg | Grab | 2/Year |
| PCB-8 | ng/kg | Grab | 2/Year |

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| PCB-18 | ng/kg | Grab | 2/Year |
| PCB-28 | ng/kg | Grab | 2/Year |
| PCB-37 | ng/kg | Grab | 2/Year |
| PCB-44 | ng/kg | Grab | 2/Year |
| PCB-49 | ng/kg | Grab | 2/Year |
| PCB-52 | ng/kg | Grab | 2/Year |
| PCB-66 | ng/kg | Grab | 2/Year |
| PCB-70 | ng/kg | Grab | 2/Year |
| PCB-74 | ng/kg | Grab | 2/Year |
| PCB-77 | ng/kg | Grab | 2/Year |
| PCB-81 | ng/kg | Grab | 2/Year |
| PCB-87 | ng/kg | Grab | 2/Year |
| PCB-99 | ng/kg | Grab | 2/Year |
| PCB-101 | ng/kg | Grab | 2/Year |
| PCB-105 | ng/kg | Grab | 2/Year |
| PCB-110 | ng/kg | Grab | 2/Year |
| PCB-114 | ng/kg | Grab | 2/Year |
| PCB-118 | ng/kg | Grab | 2/Year |
| PCB-119 | ng/kg | Grab | 2/Year |
| PCB-123 | ng/kg | Grab | 2/Year |
| PCB-126 | ng/kg | Grab | 2/Year |
| PCB-128 | ng/kg | Grab | 2/Year |
| PCB-138 | ng/kg | Grab | 2/Year |
| PCB-149 | ng/kg | Grab | 2/Year |
| PCB-151 | ng/kg | Grab | 2/Year |
| PCB 153 | ng/kg | Grab | 2/Year |
| PCB 156 | ng/kg | Grab | 2/Year |
| PCB 157 | ng/kg | Grab | 2/Year |
| PCB 158 | ng/kg | Grab | 2/Year |
| PCB 167 | ng/kg | Grab | 2/Year |
| PCB 168 | ng/kg | Grab | 2/Year |
| PCB 169 | ng/kg | Grab | 2/Year |
| PCB 170 | ng/kg | Grab | 2/Year |
| PCB 177 | ng/kg | Grab | 2/Year |
| PCB 180 | ng/kg | Grab | 2/Year |
| PCB 183 | ng/kg | Grab | 2/Year |
| PCB 187 | ng/kg | Grab | 2/Year |
| PCB 189 | ng/kg | Grab | 2/Year |
| PCB 194 | ng/kg | Grab | 2/Year |
| PCB 195 | ng/kg | Grab | 2/Year |
| PCB 201 | ng/kg | Grab | 2/Year |

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| PCB 206 | ng/kg | Grab | 2/Year |
| 4,4'-DDT | ng/kg | Grab | 2/Year |
| 2,4'-DDT | ng/kg | Grab | 2/Year |
| 4,4'-DDD | ng/kg | Grab | 2/Year |
| 2,4'-DDD | ng/kg | Grab | 2/Year |
| 4,4'-DDE | ng/kg | Grab | 2/Year |
| 4,4'-DDMU | ng/kg | Grab | 2/Year |
| alpha-Chlordane | ng/kg | Grab | 2/Year |
| gamma-Chlordane | ng/kg | Grab | 2/Year |
| cis-nonachlor | ng/kg | Grab | 2/Year |
| trans-nonachlor | ng/kg | Grab | 2/Year |
| oxychlordane | ng/kg | Grab | 2/Year |
| 1,6,7-Trimethylnaphthalene | Microgram/ kilogram (µg/kg) | Grab | 2/Year |
| 1-Methylnapthalene | µg/kg | Grab | 2/Year |
| 2,6-Dimethylnaphthalene | µg/kg | Grab | 2/Year |
| 2-Methylnapthalene | µg/kg | Grab | 2/Year |
| Acenaphthene | µg/kg | Grab | 2/Year |
| Acenaphthylene | µg/kg | Grab | 2/Year |
| Anthracene | µg/kg | Grab | 2/Year |
| Benz[a]anthracene | µg/kg | Grab | 2/Year |
| Benzo[a]pyrene | µg/kg | Grab | 2/Year |
| Benzo[b]fluoranthene | µg/kg | Grab | 2/Year |
| Benzo[e]pyrene | µg/kg | Grab | 2/Year |
| Benzo[g,h,i]perylene | µg/kg | Grab | 2/Year |
| Benzo[k]fluoranthene | µg/kg | Grab | 2/Year |
| Biphenyl | µg/kg | Grab | 2/Year |
| Chrysene | µg/kg | Grab | 2/Year |
| Dibenz[a,h]anthracene | µg/kg | Grab | 2/Year |
| Fluoranthene | µg/kg | Grab | 2/Year |
| Fluorene | µg/kg | Grab | 2/Year |
| Indeno[1,2,3-c,d]pyrene | µg/kg | Grab | 2/Year |
| Naphthalene | µg/kg | Grab | 2/Year |
| Perylene | µg/kg | Grab | 2/Year |
| Phenanthrene | µg/kg | Grab | 2/Year |
| Pyrene | µg/kg | Grab | 2/Year |

Notes for Table E- 6

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

[2] Monitoring for polybrominated diphenyl ethers (PBDEs or BDEs) may be delayed until January 2022 to allow the Discharger's laboratory sufficient time to validate the analytical method.

4.1.3.2. Sediment Toxicity

Sediment toxicity is a measure of the response of invertebrates exposed to surficial sediments under controlled laboratory conditions. The sediment toxicity line of evidence is used to assess both pollutant-related biological effects and exposure. The Discharger shall continue to implement the sediment toxicity monitoring recommendations contained in *Sediment Toxicity Pilot Study for the San Diego Ocean Outfall Monitoring Regions, 2016 – 2018, Final Project Report* submitted by the Discharger on June 14, 2019 (Sediment Toxicity Report) in accordance with the schedule contained in the Sediment Toxicity Report unless otherwise directed in writing by the San Diego Water Board. The Discharger shall comply with any conditions set by the San Diego Water Board. Results to the sediment toxicity monitoring shall be reported in the Interim and Biennial Receiving Water Monitoring Reports in section 4.1.5.1 of this MRP.

4.1.3.3. Benthic Community Condition

4.1.3.3.1. Benthic Community Monitoring Locations and Frequency

Sediment samples for assessment of benthic community structure shall be collected semiannually during winter (e.g., January) and summer (e.g., July) at 27 of the offshore monitoring locations listed in Table E-1, including 12 primary monitoring locations located along the outfall discharge depth contour (i.e., monitoring locations I-2, I-3, I-6, I-9, I-12, I-14, I-15, I-16, I-22, I-27, I-30, I-33) and 15 secondary monitoring locations located at other depths (i.e., monitoring locations I-1, I-4, I-7, I-8, I-10, I-13, I-18, I-20, I-21, I-23, I-28, I-29, I-31, I-34, I-35). One sample per monitoring location shall be collected for analysis of benthic community structure.

4.1.3.3.2. Benthic Community Sample Collection Methods

Benthic community samples shall be collected using the guidance specified in the most recent field operations manual developed by SCCWRP for the Southern California Bight Regional Monitoring Program (current field operations manual available at: https://ftp.sccwrp.org/pub/download/BIGHT18/Bight18SedQualityFieldManual.pdf). The benthic samples shall be collected using a 0.1-square meter modified Van Veen grab sampler. These grab samples shall be taken concurrently with and adjacent to (as much as possible) samples collected for sediment physical and chemical properties, and toxicity, if applicable. The samples shall be sieved using a 1.0-millimeter mesh screen. The benthic organisms retained on the sieve shall be fixed in 10 percent buffered formalin and transferred to at least 70 percent ethanol within two

to seven days of storage. Benthic organisms shall be counted and identified to as low a taxon as possible.

4.1.3.3.3. Benthic Community Analysis

Analysis of benthic community structure shall include determination of the number of species, number of individuals per species, and total numerical abundance present. The following parameters or metrics shall be calculated for each 0.1-square meter grab sample and summarized by monitoring location, as appropriate:

- Number of species;
- Total numerical abundance;
- Benthic Response Index (BRI);
- Swartz's 75 percent dominance index;
- Shannon-Weiner's diversity index (H);
- Multivariate pattern analyses (e.g., ordination and classification analyses); and
- Pielou evenness index (J).

4.1.3.4. Benthic Random Sampling

This MRP, the MRP for the South Bay Water Reclamation Plant (SBWRP), and the MRP for the E.W. Bloom Point Loma Wastewater Treatment Plant (PLWTP) discharge through the Point Loma Ocean Outfall, require the City of San Diego and the Discharger to sample and analyze annually for sediment chemistry and benthic community conditions at an additional array of 40 randomly selected stations. The same sampling and processing procedures must be followed as outlined in section 4.1.3.1 of this MRP for sediment assessment for physical and chemical properties, and in section 4.1.3.3 of this MRP for benthic community condition monitoring. These stations shall be reselected each year by USEPA or their designee to meet the requirements for this MRP, the MRP for the PLWTP, and the MRP for the SBWRP using the USEPA probability-based Environmental Monitoring and Assessment Program (EMAP) design. The area of coverage shall extend from the mouth of the San Dieguito River south to the U.S. – Mexico border.

The random benthic sampling requirement may be suspended as part of a resource exchange agreement to allow for participation in the Southern California Bight Regional Monitoring Program at the discretion of the San Diego Water Board as specified in section 5.2 of this MRP.

### 4.1.4. Fish and Invertebrates Monitoring Requirements

Many pollutants discharged into receiving waters have the potential to bioaccumulate and persist in tissues of aquatic organisms, including marine fishes. Chemical pollutants that bioaccumulate tend to biomagnify as they pass through the aquatic food chain. Therefore, fish monitoring data is required to assess the human health risks for individuals who may consume fish and to assess trends of contaminants levels in fish tissue over time.

Aquatic benthic invertebrates are excellent indicators of ecosystem health because they are ubiquitous, abundant, diverse, and typically sedentary. The growth, survival, and reproduction of many species of aquatic invertebrates are all sensitive to changes in environmental health, making analysis of assemblage structure a good ecosystem monitoring tool.

Fish and invertebrate monitoring is necessary to answer the following questions:

(1) Does the concentration of pollutants in fish, shellfish, or other marine organisms used for human consumption bioaccumulate to levels that are harmful to human health?
(2) Does the concentration of pollutants in marine life bioaccumulate to levels that degrade marine communities?
(3) Are the concentrations of pollutants in fish and other marine organisms changing over time?
(4) Is the health of fish changing over time?
(5) Are the populations of selected species of fish and invertebrates changing over time?

4.1.4.1. Fish and Invertebrate Trawls

4.1.4.1.1. Fish and Invertebrate Trawl Frequency and Locations

Fish and invertebrate trawls shall be conducted to assess the structure of demersal fish and megabenthic invertebrate communities, while the presence of priority pollutants in fish will be analyzed from species captured using both trawling and rig fishing techniques (see section 4.1.4.2 of this MRP). Single community trawls for fish and invertebrates shall be conducted semiannually in the winter (e.g., January) and summer (e.g., July) at seven trawl monitoring locations designated SD-15 through SD-21 at the locations specified in Table E-1. These monitoring locations represent two areas near Discharge Point No. 001 (i.e., monitoring locations SD-17 and SD-18), three areas up coast of Discharge Point No. 001 (i.e., monitoring locations SD-19, SD-20, and SD-21), and two areas down coast of Discharge Point No. 001 (i.e., monitoring locations SD-15 and SD-16).

4.1.4.1.2. Fish and Invertebrate Trawl Method

Trawls shall be conducted using a Marinovich 7.62-meter (25-foot) head rope otter trawl, using the guidance specified in the most recent field manual developed for the Southern California Bight Regional Monitoring Program. Captured organisms shall be identified at all monitoring locations.

In order to minimize negative impacts that may occur due to unsuccessful trawling efforts associated with unusual environmental conditions, the requirement to conduct trawls during any given period may be postponed or waived at the discretion of the Executive Officer of the San Diego Water

Board upon receipt of written justification provided by the Discharger. Examples of such unusual events include the presence of large populations of red tuna crabs (*Pleuroncodes planipes*) associated with El Niño and the occurrence of large squid egg masses that prevent hauling in the trawl nets.

4.1.4.1.3. Fish and Invertebrate Community Structure Analysis

All demersal fishes and megabenthic invertebrates collected by trawls shall be identified by species if possible. For fish, community structure analysis shall consist of determining the standard length and total wet weight, total number of individuals per species, the total numerical abundance of all fish, species richness, species diversity (H'), and multivariate pattern analyses (e.g., ordination and classification analyses). The presence of any physical abnormalities or disease symptoms (e.g., fin erosion, external lesions, and tumors) or external parasites shall also be recorded. For invertebrates, community structure shall be summarized as the total number of individuals per species, the total numerical abundance of all invertebrates, species richness, and species diversity (H').

4.1.4.1.4. Fish Liver Tissue Chemical Analysis

Chemical analyses of fish tissues shall be performed annually (e.g., October) on target species collected at or near the trawl monitoring locations. The seven trawl monitoring locations are classified into five zones for the purpose of collecting sufficient numbers of fish for tissue analyses. Trawl Zone 5 represents the nearfield zone, defined as the area within a 1-km radius of monitoring locations SD-17 and/or SD-18; Trawl Zone 6 represents the north farfield zone, defined as the area within a 1-km radius of monitoring locations SD-19 and/or SD-20; Trawl Zone 7 represents the far-north farfield zone, defined as the area within a 1-km radius of monitoring location SD-21; Trawl Zone 8 represents the south farfield zone, defined as the area within a 1-km radius of monitoring location SD-16; Trawl Zone 9 represents the far-south farfield zone, defined as the area within a 1-km radius of monitoring location SD-15. There are no depth requirements for these five zones with regards to the collection of fishes for tissue analysis.

Liver tissues shall be analyzed from fishes collected in each of the above five trawl zones. No more than a maximum of five 10-minute (bottom time) trawls shall be required per zone in order to acquire sufficient numbers of fish for composite samples; these trawls may occur anywhere within a defined zone. If sufficient numbers of trawl zone target species cannot be, or are unlikely to be, captured by trawling, fish for tissue analysis from these areas may be collected using alternative methods such as those described below under Rig Fishing in section 4.1.4.2.2 of this MRP (e.g., hook and line, baited lines). Three replicate composite samples shall be

prepared from each trawl zone, with each composite consisting of tissues from at least three individual fish of the same species. These liver tissues shall be analyzed for the constituents listed in the Table E-7 below.

4.1.4.1.5. Fish Targeted for Chemical Analysis

The species of fish targeted for tissue analysis from the trawl sites shall be primarily flatfish including, but not limited to, Pacific sanddab (*Citharichthys sordidus*), longfin sanddab (*Citharichthys xanthostigma*), bigmouth sole (*Hippoglossina stomata*), and hornyhead turbot (*Pleuronichthys verticalis*). If sufficient numbers of these primary flatfish species are not present in a zone, secondary target species such as the California scorpionfish (*Scorpaena guttata*) and halfbanded rockfish (*Sebastes semicinctus*) may be collected as necessary.

4.1.4.2. Rig Fishing

4.1.4.2.1. Rig Fishing Frequency

Fish muscle tissues shall be analyzed annually (e.g., October) from fishes collected in each of the two rig fishing zones described below in order to monitor the uptake of pollutants in selected species.

4.1.4.2.2. Rig Fishing Method and Location

The fish shall be collected by hook and line or by setting baited lines from within zones surrounding rig fishing monitoring locations RF-3 and RF-4 listed in Table E-1. Rig Fishing Zone 3 is the nearfield area centered within a 1-km radius of monitoring location RF-3; Rig Fishing Zone 4 represents the southern farfield area centered within 1-km radius of monitoring location RF-4. There are no depth requirements for these two rig fishing zones with regards to the collection of fishes for tissue analysis. Fish samples shall be identified to species, with number of individuals per species, standard length and wet weight recorded. Physical abnormalities and disease symptoms shall be recorded and itemized (e.g., fin rot, lesions, and tumors).

4.1.4.2.3. Rig Fishing Targeted Species

The species of fish targeted for muscle tissue analysis from the rig fishing monitoring locations shall be representative of those caught by recreational and/or commercial fishery activities in the region. The species targeted for muscle tissue analysis shall be primarily rockfish, which may include, but are not limited to, the vermilion rockfish (*Sebastes miniatus*) and the copper rockfish (*Sebastes caurinus*). If sufficient numbers of these primary species are not present or cannot be caught in a particular zone, secondary target species (e.g., other rockfish, scorpionfish) may be collected and analyzed as necessary.

4.1.4.2.4. Rig Fishing Collection

Three replicate composite samples of the target species shall be obtained from each zone, with each composite consisting of a minimum of three individual fish. Muscle tissue shall be chemically analyzed for the same set of constituents as trawl-caught fish specified in Table E- 7.

**Table E- 7. List of Parameters to Characterize Fish Tissue [1]**

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| Total Lipids | Percent | Composite | 1/Year |
| Aluminum | mg/kg | Composite | 1/Year |
| Antimony | mg/kg | Composite | 1/Year |
| Arsenic | mg/kg | Composite | 1/Year |
| Barium | mg/kg | Composite | 1/Year |
| Beryllium | mg/kg | Composite | 1/Year |
| Cadmium | mg/kg | Composite | 1/Year |
| Chromium | mg/kg | Composite | 1/Year |
| Copper | mg/kg | Composite | 1/Year |
| Iron | mg/kg | Composite | 1/Year |
| Lead | mg/kg | Composite | 1/Year |
| Mercury | mg/kg | Composite | 1/Year |
| Nickel | mg/kg | Composite | 1/Year |
| Selenium | mg/kg | Composite | 1/Year |
| Silver | mg/kg | Composite | 1/Year |
| Zinc | mg/kg | Composite | 1/Year |
| BDE-17[2] | ng/kg | Composite | 1/Year |
| BDE-28[2] | ng/kg | Composite | 1/Year |
| BDE-47[2] | ng/kg | Composite | 1/Year |
| BDE-49[2] | ng/kg | Composite | 1/Year |
| BDE-66[2] | ng/kg | Composite | 1/Year |
| BDE-85[2] | ng/kg | Composite | 1/Year |
| BDE-99[2] | ng/kg | Composite | 1/Year |
| BDE-100[2] | ng/kg | Composite | 1/Year |
| BDE-138[2] | ng/kg | Composite | 1/Year |
| BDE-153[2] | ng/kg | Composite | 1/Year |
| BDE-154[2] | ng/kg | Composite | 1/Year |
| BDE-183[2] | ng/kg | Composite | 1/Year |
| BDE-190[2] | ng/kg | Composite | 1/Year |
| PCB-8 | ng/kg | Composite | 1/Year |
| PCB-18 | ng/kg | Composite | 1/Year |
| PCB-28 | ng/kg | Composite | 1/Year |
| PCB-37 | ng/kg | Composite | 1/Year |
| PCB-44 | ng/kg | Composite | 1/Year |
| PCB-49 | ng/kg | Composite | 1/Year |

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| PCB-52 | ng/kg | Composite | 1/Year |
| PCB-66 | ng/kg | Composite | 1/Year |
| PCB-70 | ng/kg | Composite | 1/Year |
| PCB-74 | ng/kg | Composite | 1/Year |
| PCB-77 | ng/kg | Composite | 1/Year |
| PCB-81 | ng/kg | Composite | 1/Year |
| PCB-87 | ng/kg | Composite | 1/Year |
| PCB-99 | ng/kg | Composite | 1/Year |
| PCB-101 | ng/kg | Composite | 1/Year |
| PCB-105 | ng/kg | Composite | 1/Year |
| PCB-110 | ng/kg | Composite | 1/Year |
| PCB-114 | ng/kg | Composite | 1/Year |
| PCB-118 | ng/kg | Composite | 1/Year |
| PCB-119 | ng/kg | Composite | 1/Year |
| PCB-123 | ng/kg | Composite | 1/Year |
| PCB-126 | ng/kg | Composite | 1/Year |
| PCB-128 | ng/kg | Composite | 1/Year |
| PCB-138 | ng/kg | Composite | 1/Year |
| PCB-149 | ng/kg | Composite | 1/Year |
| PCB-151 | ng/kg | Composite | 1/Year |
| PCB 153 | ng/kg | Composite | 1/Year |
| PCB 156 | ng/kg | Composite | 1/Year |
| PCB 157 | ng/kg | Composite | 1/Year |
| PCB 158 | ng/kg | Composite | 1/Year |
| PCB 167 | ng/kg | Composite | 1/Year |
| PCB 168 | ng/kg | Composite | 1/Year |
| PCB 169 | ng/kg | Composite | 1/Year |
| PCB 170 | ng/kg | Composite | 1/Year |
| PCB 177 | ng/kg | Composite | 1/Year |
| PCB 180 | ng/kg | Composite | 1/Year |
| PCB 183 | ng/kg | Composite | 1/Year |
| PCB 187 | ng/kg | Composite | 1/Year |
| PCB 189 | ng/kg | Composite | 1/Year |
| PCB 194 | ng/kg | Composite | 1/Year |
| PCB 195 | ng/kg | Composite | 1/Year |
| PCB 201 | ng/kg | Composite | 1/Year |
| PCB 206 | ng/kg | Composite | 1/Year |
| 2,4'-DDD | ng/kg | Composite | 1/Year |
| 4,4'-DDD | ng/kg | Composite | 1/Year |
| 4,4'-DDE | ng/kg | Composite | 1/Year |

| Parameter | Units | Type of Sample | Minimum Frequency |
|---|---|---|---|
| 2,4'-DDT | ng/kg | Composite | 1/Year |
| 4,4'-DDT | ng/kg | Composite | 1/Year |
| 4,4'-DDMU | ng/kg | Composite | 1/Year |
| alpha-Chlordane | ng/kg | Composite | 1/Year |
| gamma-Chlordane | ng/kg | Composite | 1/Year |
| cis-Nonachlor | ng/kg | Composite | 1/Year |
| trans-Nonachlor | ng/kg | Composite | 1/Year |
| Oxychlordane | ng/kg | Composite | 1/Year |
| 1,6,7-Trimethylnaphthalene | ng/kg | Composite | 1/Year |
| 1-Methylnapthalene | µg/kg | Composite | 1/Year |
| 2,6-Dimethylnaphthalene | ng/kg | Composite | 1/Year |
| 2-Methylnapthalene | ng/kg | Composite | 1/Year |
| Acenaphthene | µg/kg | Composite | 1/Year |
| Acenaphthylene | µg/kg | Composite | 1/Year |
| Anthracene | µg/kg | Composite | 1/Year |
| Benz[a]anthracene | µg/kg | Composite | 1/Year |
| Benzo[b]fluoranthene | µg/kg | Composite | 1/Year |
| Benzo[k]fluoranthene | µg/kg | Composite | 1/Year |
| Benzo[g,h,i]pyrelene | µg/kg | Composite | 1/Year |
| Benzo[a]pyrene | µg/kg | Composite | 1/Year |
| Benzo[e]pyrene | µg/kg | Composite | 1/Year |
| Biphenyl | µg/kg | Composite | 1/Year |
| Chrysene | µg/kg | Composite | 1/Year |
| Dibenz[a,h]anthracene | µg/kg | Composite | 1/Year |
| Fluoranthene | µg/kg | Composite | 1/Year |
| Fluorene | µg/kg | Composite | 1/Year |
| Ideno[1,2,3-c,d]pyrene | µg/kg | Composite | 1/Year |
| Naphthalene | µg/kg | Composite | 1/Year |
| Naphthalene | µg/kg | Composite | 1/Year |
| Perylene | µg/kg | Composite | 1/Year |
| Phenanthrene | µg/kg | Composite | 1/Year |
| Pyrene | µg/kg | Composite | 1/Year |

Note for Table E- 7

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

[2] Monitoring for polybrominated diphenyl ethers (PBDEs or BDEs) may be delayed until January 2022 to allow the Discharger's laboratory sufficient time to validate the analytical method.

### 4.1.5. Ocean Receiving Water Status and Trends

4.1.5.1. Receiving Water Monitoring Report

4.1.5.1.1. The Discharger shall submit Interim and Biennial Receiving Water Monitoring Reports to the San Diego Water Board. The Interim Receiving Water Monitoring Reports will cover only one year of receiving water monitoring (e.g., separate reports for calendar years 2022, 2024, and 2026), will only cover even numbered years, and shall be submitted every other year. The Biennial Receiving Water Monitoring Reports will provide a more thorough discussion, evaluation (e.g., detailed statistical analyses), and interpretation than the Interim Receiving Water Monitoring Reports, will cover two years of receiving water monitoring (e.g., biennial reports for calendar years 2020-2021, 2022-2023, and 2024-2025), and shall be submitted the opposite years as the Interim Receiving Water Monitoring Reports. These reports are described below under sections 4.1.5.1.2 and 4.1.5.1.3 and cover the following monitoring requirements:

- Shoreline, offshore, and kelp/nearshore water quality, if available (sections 4.1.1 and 4.1.2 of this MRP);
- Sediment assessment for physical and chemistry properties (section 4.1.3.1 of this MRP);
- Sediment toxicity, if applicable (section 4.1.3.2 of this MRP);
- Benthic community condition (section 4.1.3.3 of this MRP);
- Fish and invertebrate trawls (section 4.1.4.1 of this MRP);
- Rig fishing (section 4.1.4.2 of this MRP);
- Plume tracking (section 6.2 of this MRP; only required in the Biennial Report); and
- Coastal remote sensing, when reports are available (section 6.3 of this MRP; only required in the Biennial Report).

4.1.5.1.2. The Discharger shall submit Interim Receiving Water Monitoring Reports (Interim Reports, executive summary) as specified in section 7.4, Table E-11 of this MRP. The Interim Reports will cover the first “even” year in each biennial reporting cycle as described below in section 4.1.5.1.3 (e.g., separate reports for calendar years 2022, 2024, and 2026). The Interim Reports may be submitted as an integrated report covering both the receiving water monitoring required in this MRP, the MRP for the SBWRP, and the MRP for the PLWTP (as required under separate waste discharge requirements (WDRs)). The Interim Reports shall include, as a minimum, the following information:

- A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.);
- A description of sampling stations, including, if such information is available, differences unique to each station (e.g., station location, sediment grain size, distribution of bottom sediments, rocks, shell litter, calcareous worm tubes, etc.);

- A description of the sample collection and preservation procedures used in the survey;
- A description of the specific method used for laboratory analysis;
- A tabulation of the data; and
- A narrative summary of general observations, including any abnormal conditions.

4.1.5.1.3. The Discharger shall submit Biennial Receiving Water Monitoring and Assessment Reports (Biennial Reports, full assessment) as specified in section 7.4, Table E-11 of this MRP. These Biennial Reports will each cover a full two-year monitoring cycle beginning with even-numbered years (e.g., biennial reports for calendar years 2020-2021, 2022-2023, 2024-2025). The Biennial Reports may be submitted as an integrated report covering both the receiving water monitoring required in this MRP, the MRP for the SBWRP, and the MRP for the Point Loma Ocean Outfall (as required under separate WDRs). The Biennial Reports shall include, as a minimum, the following information:

- A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling, tide height, etc.);
- A description of sampling stations, including, if such information is available, differences unique to each station (e.g., station location, sediment grain size, distribution of bottom sediments, rocks, shell litter, calcareous worm tubes, etc.);
- A description of the sample collection and preservation procedures used in the survey;
- A description of the specific method used for laboratory analysis;
- An in-depth discussion, evaluation (e.g., detailed statistical analyses), interpretation and tabulation of the data including interpretations and conclusions as to whether applicable receiving water limitations in this Order have been attained at each station; and
- An in-depth discussion addressing the questions proposed in each section of the Receiving Water Monitoring Requirements of this MRP.

4.1.5.2. State of the Ocean Report.

During the same year that the Biennial Reports are submitted, the Discharger shall present an oral report to the San Diego Water Board summarizing the conclusions of the Biennial Report over the two-year monitoring period. If an oral report cannot be scheduled for a San Diego Water Board meeting, the San Diego Water Board may approve submission of a written State of the Ocean Report. The State of the Ocean Report shall include, at minimum, the following elements:

- Description of the monitoring effort completed;
- The status and trends of receiving water quality conditions; and
- Plans for future monitoring efforts.

### 4.2. Tijuana River Valley Monitoring Program

The term transboundary flow is used in this Order to refer to a variety of flows containing pollutants from the City of Tijuana, Mexico that have historically flowed into the U.S., including flows across the north-draining canyons and ravines identified in this Order as Goat Canyon, Smugglers Gulch, Silva Drain, Canyon del Sol, and Stewart's Drain (waters of the State) that empty into the Tijuana River Valley and Tijuana River Estuary (waters of the U.S. and/or State). These wastewater flows from the City of Tijuana are attributed to a variety of sources and causes including, but not limited to, treated wastewater effluent discharges, potable water leaks, sewer line leaks and spills, discharges from unsewered areas, and other failures and breakdowns of the wastewater collection infrastructure in Mexico. The transboundary flows consist of treated and untreated municipal and industrial wastewater, potable water, and other miscellaneous flows depending on the source of the flow. These transboundary flows have adversely impacted the Tijuana River Valley and Tijuana River Estuary as well as adjacent coastal marine waters and beaches. The State of California and the San Diego Water Board have a strong interest in understanding the nature and extent of transboundary flows that enter the state from the southern border. The Discharger controls operation and maintenance of the canyon collector systems. Thus, the Discharger is in the best position to monitor water quality in the canyon collectors and evaluate the water quality and beneficial use impacts of transboundary flows. The Discharger has a measure of control over the waste.

The Tijuana River Valley Monitoring Program (TRVMP) is designed to answer the following questions for Canyon Collector Transboundary Flows through Goat Canyon, Smugglers Gulch, Silva Drain, Canyon del Sol, and Stewart's Drain:

(1) How far downstream do Canyon Collector Transboundary Flows (and the pathogens and indicator bacteria that they carry) at Stewart's Drain travel after flowing through the Stewart's Drain canyon collector system without being diverted for treatment? Under what circumstances do the pathogens and indicator bacteria they carry reach the ocean and travel to beaches with Contact Water Recreation (REC-1) beneficial use? If these transboundary flows reach the ocean, do the flows cause or contribute to beach closures at downstream beaches?

(2) What are the concentrations of pathogens and indicator bacteria generated in Mexico that may flow through the canyon collector systems and into the Tijuana River Valley and the Tijuana River Estuary without being diverted for treatment? What is the degree of temporal variability?

(3) What toxic pollutants are generated in Mexico that may flow through the canyon collector systems and cross into the Tijuana River Valley and the Tijuana River Estuary without being diverted for treatment? What is the degree of temporal variability? Are pollutants binding to the sediments that

settle and concentrate in the river valley? If so, what is the level of toxicity and half-life?

(4) What trash pollution is generated in Mexico that may flow through the canyon collector systems and cross into the Tijuana River Valley and the Tijuana River Estuary? What is the composition of the trash?

Table E-1 lists the minimum TRVMP monitoring locations (i.e., monitoring locations TRV-1 through TRV-7). Station locations are based on the need to identify the impacts from pathogens, toxic pollutants, and trash that bypass the canyon collector systems and enter the Tijuana River Valley. The five canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6) will provide information on flows that bypass the canyon collectors. The Dairy Mart Bridge monitoring location (i.e., monitoring location TRV-1) will provide information related to the downstream extent and magnitude of the impacts from the flows that bypass the Stewart's Drain canyon collector system. When transboundary flows at Stewart's Drain are not occurring, Dairy Mart Bridge can serve as a control monitoring location to prevent a skewed assessment of the impact from Canyon Collector Transboundary Flows by distinguishing the influences and/or contributing factors of transboundary flows at the Tijuana River main channel. The Tijuana River Mouth monitoring location (i.e., monitoring location TRV-7) will provide information on the pollutants that flow from the Tijuana River into the Pacific Ocean in relation to the pollutants discharged through the SBOO.

The TRVMP shall be conducted in accordance with the Surface Water Ambient Monitoring Program (SWAMP) 2017 Quality Assurance Program Plan (QAPrP) in terms of laboratory reporting limits and measurement quality objectives, unless otherwise noted. The SWAMP QAPrP is available on the State Water Board website located at: https://www.waterboards.ca.gov/water_issues/programs/swamp/qapp/swamp_QAPrP_2017_Final.pdf.

The Discharger is encouraged to expand on the monitoring program and coordinate/collaborate with other entities conducting monitoring in the Tijuana River Valley (e.g., USEPA, SCCWRP, the City of Imperial Beach) to identify other monitoring needs in the Tijuana River Valley.

### 4.2.1. Flow and Water Quality Monitoring Requirements

Canyon Collector Transboundary Flows that cross the U.S. – Mexico international border often transport pollutants generated in Mexico that impact the beneficial uses of the downstream surface waters in the U.S.

The Tijuana River Valley water quality monitoring is designed to answer the following questions:

(1) What is the frequency and volume of dry and wet weather transboundary flows?
(2) What are the sources of transboundary flows?

(3) What pollutants are present in dry and wet weather transboundary flows and what is their concentration?
(4) Do pollutants in transboundary flows affect beneficial uses of the Tijuana River and coastal ocean waters?
(5) What is the mass loading of pollutants to the Tijuana River Valley from Canyon Collector Transboundary Flows over time?
(6) Do the transboundary flows that bypass the Stewart's Drain canyon collector reach downstream waters? If so, to what extent do they contribute to impairments of the downstream waters?
(7) Are the canyon collector systems being properly operated and maintained to ensure compliance with the conditions of this Order?

4.2.1.1. Flow Monitoring Requirements

4.2.1.1.1. Canyon Collectors Monitoring Locations

The Discharger shall monitor flow at the canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6) for the following: 1) once per Canyon Collector Transboundary Flow Event during dry weather; and 2) once per year for Canyon Collector Transboundary Flow Event during wet weather. Flow measurements may be collected by either grab or by continuous meter.

4.2.1.1.2. Dairy Mart Bridge

The Discharger shall monitor flow at Dairy Mart Bridge (i.e., monitoring location TRV-1) for the following: 1) once per quarter during dry weather. The Discharger shall monitor flow when there is a transboundary flow event at Stewart's Drain. If there are no transboundary flows at Stewart's Drain during the quarterly monitoring period, the Discharger shall monitor when there is a transboundary flow at the Tijuana River main channel, if possible; and 2) once per year for transboundary flows during wet weather. Flow measurements may be collected by either grab or by continuous meter.

4.2.1.2. Water Quality Monitoring Requirements

4.2.1.2.1. Canyon Collectors

Water quality monitoring at the canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6) is only required for Canyon Collector Transboundary Flow Events. Water quality monitoring is not required for transboundary flows that are diverted to the SBIWTP for treatment and discharge through the SBOO. The Discharger shall conduct water quality monitoring at the canyon collectors for the parameters groups listed in Table E-8 as follows: 1) once per Canyon Collector Transboundary Flow Event during dry weather; and 2) once per year during wet weather. Monitoring during dry weather may be collected by either grab or composite and shall include: 1) a flowing water sample, and 2) a pooled or ponded water sample. A flowing water sample and a pooled water sample

are separate samples. Monitoring during wet weather shall include: 1) a first flush grab sample, and 2) a time-weighted or flow-weighted composite sample or equivalent alternative.

4.2.1.2.2. Dairy Mart Bridge and the Tijuana River Mouth

The Discharger shall conduct water quality monitoring at Dairy Mart Bridge and the Tijuana River mouth (i.e., monitoring locations TRV-1 and TRV-7, respectively) for the parameters groups listed in Table E-8 as follows: 1) once per quarter during dry weather. The Discharger shall monitor when there is a transboundary flow event at Stewart's Drain. If there are no transboundary flows at Stewart's Drain during the quarterly monitoring period, the Discharger shall monitor when there is a transboundary flow at the Tijuana River main channel, if possible. To evaluate the impact of transboundary flows on public health and beneficial uses, the San Diego Water Board recommends the Discharger conduct weekly monitoring for *E. coli* and fecal coliform at Dairy Mart Bridge; and 2) once per year during wet weather. Monitoring during dry weather may be collected by either grab or composite. Monitoring during wet weather shall include: 1) a first flush grab sample and 2) a time-weighted or flow-weighted composite sample or equivalent alternative.

4.2.1.2.3. Water Quality Monitoring Parameters

Water quality monitoring shall be conducted at the Tijuana River Valley monitoring locations listed in Table E- 1 (i.e., monitoring locations TRV-1 through TRV-7) for the parameter groups identified in Table E- 8. For pesticides, polybrominated diphenyl ethers (PBDEs), and priority pollutants in Table E-8 (except for volatile organic compounds), water samples should be analyzed for both dissolved phase (i.e., passing filters of 0.45 µm pore size) and suspended solid associated phase to adequately characterize pollutant concentrations in water samples. The Discharger shall report the results for all parameters listed in the analytical method described in Table E- 8 for each parameter group:

**Table E- 8. List of Parameter Groups to Characterize Water Quality in the Tijuana River Valley [1]**

| Parameter Group [2] | Units | Recommended Analytical Method [3] |
|---|---|---|
| Visual Observations [4] | -- | -- |
| Flow Rate | MGD | -- |
| Conductivity | Micromhos per centimeter (µmhos/cm) | [5] |
| Temperature | °F | [5] |
| pH | Standard Units | [5] |

| Parameter Group [2] | Units | Recommended Analytical Method [3] |
|---|---|---|
| Dissolved Oxygen | mg/L | [5] |
| Turbidity | NTU | [5] |
| TSS | mg/L [6] | [5] |
| cBOD | mg/L [6] | [5] |
| Ammonia (as N) | mg/L [6] | [5] |
| Nitrogen, Total | mg/L [6] | [5] |
| Phosphorus, Total (as P) | mg/L [6] | [5] |
| E. coli [7] | Number/100 mL | [5] |
| Enterococci [8] | Number/100 mL | [5] |
| Fecal Coliform | Number/100 mL | [5] |
| Norovirus and Entrovirus | Number/100 mL | USEPA 1615 |
| Surfactants, Anionic, Methylene Blue Active Substances (MBAS) | mg/L [6] | SM5540C |
| Heavy Metals | µg/L [6] | USEPA 6010 |
| Mercury (Total and Methyl) | µg/L [6] | USEPA 245.1 or USEPA 7471 |
| Organochlorine Pesticides | µg/L [6] | USEPA 8081B |
| Organophosphorus Pesticides | µg/L [6] | USEPA 8141 |
| PAHs | µg/L [6] | USEPA 8270 |
| PCB Congeners | µg/L [6] | USEPA 8082 |
| Volatile Organic Compounds | µg/L [6] | USEPA 8260 |
| Semi-volatile Organic Compounds | µg/L [6] | USEPA 8270 |
| Pyrethroid Pesticides | µg/L [6] | USEPA 8081B |
| Neonicotinoid Pesticides | µg/L [6] | ELISA/USEPA 625-NCI |
| Carbamate Pesticides | µg/L [6] | USEPA 632 |
| PBDEs | µg/L [6] | USEPA 8081B |
| Nonylphenols and Nonylphenol ethoxylates | µg/L [6] | [9] |
| Remaining Priority Pollutants | µg/L [6] | [5] |

Notes for Table E-8:

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

[2] The Discharger shall provide the specific parameters that will be monitored in each parameter group in the TRVMP Work Plan described below in section 4.2.4 of this MRP.

[3] The Discharger may propose an alternative method in the TRVMP Work Plan described below in section 4.2.4 of this MRP.

[4] Visual observations of the surface water conditions at the designated receiving water monitoring locations shall be conducted in such a manner as to enable the observer to describe and report the presence, if any, of

floatables of sewage origin and trash. Observations of weather (cloudy, sunny, or rainy), tidal conditions (high or low; at applicable monitoring locations), water color, oil and grease, turbidity, and odor shall also be recorded. For canyon collector monitoring locations, the Discharger shall also observe if sediment is accumulating in the canyon collector system. These observations shall be taken whenever a sample is collected.

[5] Consistent with the methods prescribed under 40 CFR part 136.

[6] 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 7.12 of this Order.

[7] *E. coli* is required at freshwater monitoring locations (i.e., monitoring locations TRV-1 through TRV-6).

[8] Enterococci is required at saline monitoring locations (i.e., monitoring location TRV-7).

[9] The recommended analytical method is described in *Method validation and reconnaissance of pharmaceuticals, personal care products, and alkylphenols in surface waters, sediments, and mussels in an urban estuary* (Klosterhaus et al. 2013).

### 4.2.2. Sediment Monitoring Requirements

Many of the pollutants contained in transboundary flows can adhere to sediment and accumulate in the sediment to levels that would pose a risk to human health and degrade aquatic life. Sediment contamination is of particular concern for benthic organisms that live in the sediment of streams, rivers, and estuaries. Sediment contamination can introduce stressors to the benthic organisms that cause acute and chronic affects, such as mortality and decreased reproduction. Benthic organisms are vital to the ecosystem as they provide a food source for many fish, amphibians, and birds.

The Tijuana River Valley sediment monitoring is designed to answer the following questions:

(1) What are the concentrations of pollutants in sediment at the canyon collector systems and how do the concentrations compare to Diary Mart Bridge?
(2) Is the sediment quality changing over time?
(3) Is the concentration of pollutants at levels which would impact public health?
(4) Is the concentration of pollutants at levels which would degrade the benthic community of downstream surface waters?
(5) Is sediment accumulating at the monitoring location?

#### 4.2.2.1. **Sediment Assessment for Physical and Chemical Properties**

##### 4.2.2.1.1. Sediment Monitoring Locations and Monitoring Frequency

The Tijuana River Valley sediment monitoring program is designed to assess pollutant accumulation at the Tijuana River Valley monitoring locations. Sediment samples for assessment of sediment chemistry shall be collected twice per permit term at the canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6) and the Dairy Mart Bridge monitoring location (i.e., monitoring location TRV-1) listed in Table E-1. Sampling shall be spaced equally throughout the permit term to the extent possible.

4.2.2.1.2. Sediment Sample Collection Methods

Sediment samples shall be collected in accordance with the methods developed for the Surface Water Ambient Monitoring Program (SWAMP) Stream Pollution Trends Monitoring Program (SPoT). Sediment samples for physical and chemical properties shall be taken concurrently with and adjacent to (as much as possible) the sediment samples for toxicity.

4.2.2.1.3. Sediment Chemistry Test Methods

Sediment chemistry is the measurement of the concentration of chemicals of concern in sediments. The chemistry line of evidence is used to assess the potential overall exposure risk to benthic organisms from pollutants in surficial sediments that are transported from the canyon streams to the Tijuana River and Estuary. Chemical analysis of sediment shall use analytical methods consistent with the SWAMP and/or SPoT and shall achieve the reporting limits listed in Table 4 of the SPoT Quality Assurance Project Plan (QAPP; available at on the State Water Board website located at: https://www.waterboards.ca.gov/water_issues/programs/swamp/qapp/qapp_spot_strms_pollute_final.pdf) when applicable. The Discharger may propose alternative methods in the TRVMP Work Plan described below in section 4.2.4 of this MRP, subject authorization by the San Diego Water Board. For chemical analysis of sediment, samples shall be reported on a dry weight basis.

4.2.2.1.4. Sediment Chemistry Parameter Groups

Sediment monitoring for physical and chemical properties shall be conducted at the Diary Mart Bridge and canyon collector monitoring locations in Table E-1 (i.e., monitoring locations TRV-1 through TRV-6) for the parameter groups identified in Table E-9. The Discharger shall report the results for all parameters listed in the analytical method described in Table E- 9 for each parameter group:

**Table E- 9. List of Parameters Groups to Characterize Sediment Contamination Exposure in the Tijuana River Valley [1]**

| Parameter Group [2] | Units | Type of Sample | Minimum Sampling Frequency | Recommended Analytical Method [3] |
|---|---|---|---|---|
| Sediment Grain Size | µm | Grab | 2/Permit Term [4] | USEPA/620/R-95/008 or ASTM D-442 |
| Total Organic Carbon | Percent | Grab | 2/Permit Term [4] | USEPA 9060A |
| Heavy Metals (Total) | mg/kg | Grab | 2/Permit Term [4] | USEPA 6020 |
| Mercury (Total and Methyl) | mg/kg | Grab | 2/Permit Term [4] | USEPA 245.5 or 7473 |
| PAHs | ng/g | Grab | 2/Permit Term [4] | USEPA 8270-NCI Low Detection |
| PCB Congeners | ng/g | Grab | 2/Permit Term [4] | USEPA 8082 |
| Nonylphenols and Nonylphenol ethoxylates | ng/g | Grab | 2/Permit Term [4] | [5] |
| Organochlorine Pesticides | ng/g | Grab | 2/Permit Term [4] | USEPA 8081 |
| Organophosphorus Pesticides | ng/g | Grab | 2/Permit Term [4] | USEPA 8141 |
| Pyrethroid Pesticides | ng/g | Grab | 2/Permit Term [4] | USEPA 8270-NCI Low Detection or USEPA 8081/1699 |
| PBDEs | ng/g | Grab | 2/Permit Term [4] | USEPA 8081B |

Notes for Table E-9

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

[2] The Discharger shall provide the specific parameters that will be monitored in each parameter group in the TRVMP Work Plan described below in section 4.2.4 of this MRP.

[3] The Discharger may propose an alternative method in the TRVMP Work Plan described below in section 4.2.4 of this MRP.

[4] Sampling shall be spaced equally throughout the permit term to the extent possible.

[5] The recommended analytical method is described in *Method validation and reconnaissance of pharmaceuticals, personal care products, and alkylphenols in surface waters, sediments, and mussels in an urban estuary* (Klosterhaus et al. 2013). The Discharger may recommend an alternative method if in concurrence with the San Diego Water Board.

4.2.2.2. **Sediment Toxicity**

4.2.2.2.1. Sediment Toxicity Monitoring Locations and Frequency

Sediment toxicity is a measure of the response of invertebrates exposed to surficial sediments under controlled laboratory conditions. The sediment toxicity line of evidence is used to assess both pollutant-related biological effects and exposure. Sediment samples for assessment of toxicity shall be collected and analyzed twice during the permit term at the Diary Mart Bridge and canyon collector monitoring locations in Table E-1 (i.e., monitoring locations TRV-1 through TRV-6).

4.2.2.2.2. Sediment Toxicity Collection Methods

Sediment toxicity samples shall be collected in accordance with the methods used for SPoT. Sediment samples for toxicity shall be taken concurrently with the sediment samples for physical and chemical properties.

4.2.2.2.3. Sediment Toxicity Test Methods

Sediment toxicity analyses shall use the *Hyalella aztexa* 10-day survival and sublethal test (test method 100.1) in accordance with USEPA 600/R-99/064, *Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Invertebrates* (2000).

4.2.2.2.4. Sediment Toxicity Data Analysis

Analysis of sediment toxicity shall include a calculation of the mean control normalized response.

4.2.2.3. **Sediment Data Analysis**

Sediment data shall be compared among Tijuana River Valley monitoring locations and to similar sites in the SPoT program.

### 4.2.3. Trash Assessment

The Discharger shall conduct a trash assessment once in year two and once in year four of permit term at Smugglers Gulch and Goat Canyon (i.e., monitoring locations TRV-5 and TRV-6, respectively) after a wet weather event. The Discharger shall use the trash assessment method contained in *A Rapid Trash Assessment Method Applied to Waters of the San Francisco Bay Region: Trash Measurement in Streams* (SWAMP 2007) available on the California Regional Water Quality Control Board, San Francisco Region website located at https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/SWAMP/swampthrashreport.pdf. Trash assessments shall include an assessment of all trash, including waste tires.

### 4.2.4. TRVMP Work Plan

The Discharger shall submit a TRVMP Work Plan no later than 90 days after the effective date of this Order. At minimum, the TRVMP Work Plan shall include the following information:

- Specific GPS coordinates for the monitoring locations;
- Specific parameters that will be monitored in the water column and sediment;
- The proposed analytical methods for water column and sediment monitoring, including the reporting limits and method detection limits for each parameter;
- Frequency of water and sediment quality monitoring and a schedule for conducting the monitoring;
- Protocols for water column and sediment sample collection and processing;
- Any additional monitoring the Discharger proposes to conduct;
- A Quality Assurance Project Plan (QAPP) describing the project objectives, organization, functional activities, and quality assurance/quality control protocols; and

The Discharger shall implement the TRVMP Work Plan 90 days after submission of the work plan, unless otherwise directed in writing by the San Diego Water Board. The Discharger shall notify the San Diego Water Board of the intent to initiate the proposed actions included in the TRVMP Work Plan; and comply with any conditions set by the San Diego Water Board.

### 4.2.5. TRVMP Reporting

4.2.5.1. Transboundary Flow Reporting

Tijuana River Transboundary Flow Events and dry weather Canyon Collector Transboundary Flow Events shall be tabulated on a monthly basis and summarized in the monthly SMR. The Discharger is encouraged to tabulate wet weather Canyon Collector Transboundary Flow Events and Other Canyon Transboundary Flow Events to the extent they are aware of them. Wet weather and dry weather transboundary flow events shall be reported separately. The monthly SMR shall also include:

- The rain gauge data from the Goat Canyon pump station, regardless of whether there was a transboundary flow event or not;
- Any applicable certified Spill and Transboundary Wastewater Flow Reports submitted pursuant to section 6.3.2.3.4 of the Order;
- Laboratory reports if water quality monitoring was conducted,
- Daily log of flows at the CILA pump station and in the Tijuana River; and
- Daily log of the CILA pump station status.

If no transboundary flows occurred during the calendar month, the Discharger shall report “no transboundary wastewater flows”. The monthly

SMR shall be submitted in accordance with section 7.2.3, Table E-10 of this MRP.

4.2.5.1.1. Reporting for Transboundary Flows

Tijuana River Transboundary Flow Events and dry weather Canyon Collector Transboundary Flow Events (i.e., dry weather transboundary flows at monitoring locations TRV-2 through TRV-6), shall include the information listed below in the monthly SMR. The San Diego Water Board requests the Discharger also provide this information for transboundary flows at other locations to the extent the Discharger becomes aware of them.

- A description of the event and its cause (if known);
- The location(s) where the event occurred;
- The duration of the event (i.e., flow start and stop time, or expected stop time if ongoing due to repairs and maintenance);
- The volume of the event including a description of any methodology, standardized templates, tables, or pictures used to provide the volume estimate (or flow rate if ongoing); and
- Any coordination with interested stakeholders to determine the reasons why the event occurred, and any corrective actions planned or taken.

4.2.5.1.2. Reporting for Canyon Collector Transboundary Flows

In addition to the information required in section 4.2.5.1.1 above, for transboundary flows that bypass the canyon collectors (i.e., monitoring locations TRV-2 through TRV-6) during dry weather, as defined in section 6.3.2.1.1.1 and 6.3.2.1.1.2 of this Order, the monthly SMR shall also include the following:

- If applicable, the reason why the canyon collector system(s) did not capture the flow, or the date and time the canyon collector system(s) were closed. If the flow exceeded the capacity of the canyon collector system, the Discharger shall provide documentation to support this conclusion;
- The most recent inspection, operation, and maintenance records for the applicable canyon collector system(s);
- The location and approximate volume of any related sewage spills that occurred in Tijuana, Mexico that may be contained in the reported transboundary wastewater flow (if known);
- Corrective actions taken or planned (if applicable); and
- A description of any modifications made or planned to the Spill and Flow Prevention and Response Plan (if applicable).

4.2.5.2. TRVMP Monitoring Results

The Discharger shall submit quarterly monitoring reports on the TRVMP in accordance with section 7.2.3, Table E-10 of this MRP. The quarterly monitoring reports shall include the following information:

- A description of the monitoring activities conducted during the quarter;
- All analytical data gathered during the quarter, including laboratory reports; and
- An analysis of the data in terms of human health and ecological impacts.

4.2.5.3. TRVMP Status and Trends

4.2.5.3.1. Tijuana River Valley Monitoring Report

4.2.5.3.1.1. The Discharger shall submit a Tijuana River Valley Report once no later than ~~180 days prior to~~ the expiration date of this Order. The receiving water monitoring report shall cover the following requirements:

- Tijuana River Valley water quality (section 4.2.1 of this MRP);
- Tijuana River Valley sediment quality (section 4.2.2 of this MRP);
- Tijuana River Valley trash assessment (section 4.2.3 of this MRP);

4.2.5.3.1.2. The Tijuana River Valley Monitoring Report shall include, as a minimum, the following information:

- A description of climatic and receiving water characteristics at the time of sampling (weather observations, floating debris, discoloration, time of sampling, tide height at the time of sampling for applicable monitoring locations, etc.);
- A description of sampling stations, including, if such information is available, differences unique to each station (e.g., station location, distribution of bottom sediments, presence of water, etc.);
- A narrative summary of general observations, including any abnormal conditions;
- A description of the sample collection and preservation procedures used in the survey;
- A description of the specific method used for laboratory analysis;
- An in-depth discussion, evaluation (e.g., detailed statistical analyses), interpretation, and tabulation of the data including interpretations and conclusions as to the water and sediment quality;
- An analysis of whether there are illicit discharges of industrial waste into the Tijuana River or canyons; and
- An in-depth discussion addressing the questions proposed in each section of the TRVMP.

4.2.5.3.2. State of the Tijuana River Valley

The Discharger shall present an oral report to the San Diego Water Board summarizing the conclusions of the Tijuana River Valley Receiving Water Monitoring Report. The State of the Tijuana River Valley Report shall be given once no later than ~~180 days prior to~~ the expiration date of this Order. If an oral report cannot be scheduled for a San Diego Water Board

meeting, the San Diego Water Board may approve submission of a written State of the Tijuana River Valley Report. The State of the Tijuana River Valley Report shall include, at minimum, the following elements:

- Description of the monitoring effort completed;
- The status and trends of Tijuana River Valley water conditions; and
- Plans for future monitoring efforts.

### 4.3. California Environmental Data Exchange Network (CEDEN)

In addition to submitting SMRs, the Discharger shall also ensure that all the receiving water monitoring results are submitted to CEDEN no later than 120 days after reports are received. If the ocean receiving water monitoring is conducted jointly with other dischargers to the SBOO, the Discharger shall coordinate the submittal of the receiving water monitoring results with other agencies discharging through the SBOO to ensure data is not duplicated in CEDEN. A statement certifying that all monitoring results have been timely uploaded into CEDEN shall be submitted annually by March 1 of each year. Only monitoring results from the following requirements shall be reported in CEDEN:

- Shoreline, nearshore, kelp zone, and offshore water quality (section 4.1.1 and 4.1.2 of this MRP);
- Ocean sediment assessment for physical and chemistry properties (section 4.1.3.1 of this MRP);
- Ocean sediment toxicity (section 4.1.3.2 of this MRP);
- Ocean benthic community condition (section 4.1.3.3 of this MRP);
- Ocean fish and invertebrate trawls (section 4.1.4.1 of this MRP);
- Ocean rig fishing (section 4.1.4.2 of this MRP);
- Tijuana River Valley water quality (section 4.2.1 of this MRP)
- Tijuana River Valley sediment assessment for physical and chemistry properties (section 4.2.2.1 of this MRP);
- Tijuana River Valley sediment toxicity (section 4.2.2.2 of this MRP); and

## 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 of these considerations, the San Diego Water Board supports regional approaches to monitoring ocean waters.

The Discharger shall, as directed by the San Diego Water Board, 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. These programs shall be developed and implemented so as to answer the following questions:

(1) What are the status and trends of conditions in ocean waters in the San Diego Region with regard to beneficial uses?
(2) Are fish and shellfish safe to eat?
(3) Is water quality safe for swimming?
(4) Are ecosystems healthy?
(5) What are the primary stressors causing or contributing to conditions of concern?
(6) What are the major sources of the stressors causing or contributing to conditions of concern?
(7) Are the actions taken to address such stressors and sources effective (i.e., environmental outcomes)?

Development and implementation of new and improved monitoring and assessment programs for ocean waters will be guided by the following:

- The Ocean Plan;
- San Diego Water Board Resolution No. R9-2012-0069, Resolution in Support of A Regional Monitoring Framework;
- San Diego Water Board staff report entitled A Framework for Monitoring and Assessment in the San Diego Region; and
- Other guidance materials, as appropriate.

### 5.1. Kelp Bed Canopy Monitoring Requirements

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

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

The Discharger shall participate with other Southern California ocean dischargers 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 a variety of influences.

Kelp beds shall be monitored by means of vertical aerial infrared photography to determine the maximum areal extent of the canopies of coastal kelp beds each year. Surveys shall be conducted as close as possible to when kelp bed canopies are at their greatest extent during the year. The entire San Diego Region coastline from the international boundary to the San Diego Region/Santa Ana Region boundary shall be photographed on the same day.

Annually by October 1, the Discharger shall submit to the San Diego Water Board a report which summarizes the data, analyses, assessment, and images produced by the surveys. The report is a joint collaboration among multiple ocean dischargers in the Southern California (e.g., Regional 9 Kelp Survey Consortium member agencies). In addition to the kelp bed canopies, the images shall show onshore reference points, locations of all ocean outfalls and diffusers, artificial reefs, areas of known hard-bottom substrate (i.e., rocky reefs), and depth contours at intervals of 30-feet mean lower low water (MLLW). The report shall also be made available in a user-friendly format on a website that is readily available to the public.

The surveys shall be conducted on a “continuous improvement” basis, as needed improvements shall be made in monitoring, analysis, assessment, and/or documentation. For example, these could include:

- More sophisticated analysis of patterns, correlations, and cycles that may be related to the extent of kelp bed canopies; or
- Projects to improve understanding of influences on kelp beds or of how the extent of the canopies of various kelp beds has changed since the early 20th century.

### 5.2. Southern California Bight Monitoring Program Participation Requirements

The Discharger is required to participate in the Southern California Bight Regional Monitoring Program coordinated by SCCWRP, or any other coordinator 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.

During these coordinated sampling efforts, a portion of the Discharger’s receiving water sampling and analytical effort, as defined in section 4 of this MRP, may be reallocated to provide a regional assessment of the impact of the discharge of wastewater to the Southern California Bight. In that event, the San Diego Water

Board shall notify the Discharger in writing that a portion of the requirements to perform the receiving water sampling and analytical effort defined in section 4 of this MRP is suspended for the duration of the reallocation. Anticipated modifications to the monitoring program will be coordinated so as to provide a more comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollution sources. The level of resources in terms of sampling and analytical effort redirected from the receiving water monitoring program required under section 4 of this MRP shall approximately equal the level of resources provided to implement the regional monitoring and assessment program, unless the San Diego Water Board and the Discharger agree otherwise. The specific scope and duration of the receiving water monitoring program reallocation and redirection shall be determined in writing by the San Diego Water Board, in consultation with the Discharger. When feasible, the Discharger shall reference the results and conclusions of the Southern California Bight Regional Monitoring Program to provide comparison and perspective on the results of the receiving water monitoring conducted by the Discharger. This analysis and comparison shall be reported in the receiving water monitoring reports described in section 4.1.5.1 of this MRP.

## 6. Special Studies Requirements

### 6.1. Climate Change Action Plan

The Discharger shall prepare and submit a Climate Change Action Plan (CCAP) within three years of the effective date of this Order. The Discharger may make use of existing climate-change-related plans to comply with this requirement. Changing climate conditions may fundamentally alter the way devices and systems used in the storage, treatment, collection and conveyance of wastewater are designed and operated. Climate change research indicates the overarching driver of change is increased atmospheric carbon dioxide ($CO_2$) from human activity. The increased $CO_2$ emissions trigger changes to climatic patterns, which increase sea level and the intensity of coastal storm surges (Δ Sea Level), lead to more erratic local weather patterns and increased flooding (Δ Weather Patterns), trigger a gradual warming of freshwater and ocean temperatures (Δ Water Temperature), and trigger changes to ocean water chemistry (Δ Water pH).

The CCAP shall identify the magnitude and timing of projected regional impacts on the Facilities (including sewers, pipes and other conveyances), and operations ability to meet the requirements of this Order due to climate change if current trends continue. The CCAP shall also identify steps being taken or planned to address greenhouse gas emissions attributable to wastewater treatment plants, solids handling, and effluent discharge processes. The CCAP shall also identify steps being taken or planned to address flooding and sea level rise risks; volatile rain period impacts (both dry and wet weather); challenges in

accommodating high and low wastewater flows; impacts on process design parameters due to higher biochemical oxygen demand, ammonia (as N), and TSS influent concentrations; impacts on wastewater treatment operations and quality; the potential need to adjust NPDES permit conditions and the Discharger's pollution control program; the financing needed to pay for planned actions; schedules to update the CCAP as more information on climate change and its effect become more available; and any other factors as appropriate. Any impacts or risks projected to jeopardize permit compliance must be addressed by a plan that includes scheduled risk assessments and mitigation measures as needed to maintain compliance.

### 6.2. Plume Tracking Monitoring Program

Plume tracking is an ongoing program designed to assess dispersion and fate of the wastewater plume discharged from the SBOO. The Discharger shall continue to implement the *Plume Tracking Monitoring Plan for the Point Loma and South Bay Ocean Outfall Regions, San Diego* submitted by the Discharger on March 28, 2018. The Discharger shall submit annual progress reports on March 1 of each year that summarize any highlights or significant project findings from the past calendar year and provide updates on the status of new work plans that have been developed or are under development. Based on the results of the plume tracking study, the Discharger shall periodically review receiving water monitoring locations to ensure the locations are properly located to evaluate the impact of the discharge. Plume tracking results and interpretations shall be included in the Biennial Ocean Receiving Water Monitoring Reports described in section 4.1.5.1 of this MRP.

### 6.3. Coastal Remote Sensing

The Coastal Remote Sensing Study utilizes various aerial and satellite sensors in the visible, near-infrared, and thermal infrared to detect patterns in natural oceanographic variables, point and non-point source terrestrial runoff, and anthropogenic sources, such as the SBOO. Remote sensing image data and subsequent advanced analyses are utilized to spatially and temporally enhance regular field sampling surveys conducted by the Discharger, and to help interpret the results from those surveys. The Discharger shall continue to participate in the Coastal Remote Sensing Study in coordination with the City of San Diego until the scheduled study end date of June 30, 2023. After completion of the study, by October 31, 2022, the Discharger shall submit to the San Diego Water Board recommendations for whether the study should be extended. Results of the Coastal Remote Sensing Study shall be included in the Biennial Ocean Receiving Water Monitoring Reports described in section 4.1.5.1 of this MRP.

### 6.4. Treatment Optimization Report

In September 2025, USIBWC began treating over 25 MGD of wastewater from Tijuana with the goal of eliminating or at least reducing dry weather

transboundary wastewater flows from the Tijuana River. As of that time, all influent undergoes an advanced primary treatment, but due to limited secondary treatment capacity at the SBIWTP, only 25 MGD goes on to receive secondary treatment. The advanced primary effluent and secondary effluent are blended prior to entering the SBOO, which discharges approximately 3.5 miles offshore.

Order No. R9-2026-0005 amends the effluent limitations as follows to account for the higher flow rate and blended effluent:

1. Higher technology-based effluent limitations for $CBOD_5$, TSS, settleable solids, and turbidity;
2. Reduced minimum percent removal of $CBOD_5$ and TSS; and
3. Higher mass emission rates for oil and grease and for parameters with effluent limitations that have Ocean Plan water quality objectives — total residual chlorine, total recoverable copper, total recoverable mercury, benzidine, chlordane, DDT, heptachlor epoxide, hexachlorobenzene, PCBs, TCDD equivalents, and toxaphene.

Order No. R9-2026-0005 does not modify concentration-based WQBELs, and all corresponding Ocean Plan WQOs must be met.

USIBWC's goal is to increase treatment of influent flows up to 35 MGD to improve overall water quality in the lower Tijuana River, Tijuana River Estuary, and near shore coastal waters. Although the aforementioned effluent limits have been amended, the additional 10 MGD of wastewater would otherwise be discharged to the Pacific Ocean via the Tijuana River Valley and Estuary without treatment due to insufficient capacity in the City of Tijuana's municipal wastewater conveyance and treatment system.

According to USIBWC's monthly self-monitoring reports, the average flow discharged from the SBIWTP in September and October 2025 was 29.22 MGD and 29.34 MGD, respectively. While USIBWC has not achieved a sustained monthly flow of 35 MGD as of December 2025, the self-monitoring data from September and October 2025 show only modest increases in TSS compared to its original 2021 permitted effluent limitation.[1]

The revised TBELs for $CBOD_5$, TSS, settleable solids, and turbidity are based on USIBWC predictive model results for 35 MGD of blended effluent. As

[1] In September and October 2025, USIBWC reported a 30-day average TSS Percent Removal of 83.24% and 82.61%, respectively, compared to its permitted effluent limitation of ≥85%. USIBWC complied with the interim effluent limitation for 30-day average TSS Percent Removal of ≥82%, as required by Cease and Desist Order No. R9-2025-0139.

USIBWC treats 35 MGD on a sustained basis, it will be able to further refine facility operations based on the best available technology. This includes, but is not limited to, further optimization of chemically enhanced primary treatment by refining ferric chloride and polymer dosing.

No later than December 1, 2026, USIBWC must submit a written report to the San Diego Water Board that evaluates treatment optimization to reduce pollutants in the blended effluent. At a minimum, the report must include:

1. All flow and process control-related data, including ferric chloride and polymer dosing, collected by USIBWC and/or its contracted operator from September 1, 2025, to September 30, 2026.
2. A description of analyses USIBWC and/or its contracted operator performed and subsequent actions taken to increase pollutant removal rates to the highest extent practicable.
3. Actions planned to further optimize treatment to achieve the highest practicable pollutant removal rates.

## 7. Reporting Requirements

### 7.1. General Monitoring and Reporting Requirements

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

**7.1.2.** 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.

### 7.2. Self-Monitoring Reports

**7.2.1.** The Discharger shall electronically submit SMRs using the State Water Board's CIWQS program website at https://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.

**7.2.2.** The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections **3** through **6**. 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.

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

**Table E- 10. 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. |
| Daily | Permit effective date | (Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling. | First day of second calendar month following month of sampling. |
| Weekly | 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 | First day of calendar month following permit effective date or on permit effective date if that date is first day of the month | 1st day of calendar month through last day of calendar month | First day of second calendar month following month of sampling. |
| Quarterly [1] | Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date | January 1 through March 31<br>April 1 through June 30<br>July 1 through September 30<br>October 1 through December 31 | May 1<br>August 1<br>November 1<br>February 1 |
| Semiannually | Closest of January 1 or July 1 following (or on) permit effective date | January 1 through June 30<br>July 1 through December 31 | Not Applicable |
| Annually | January 1 following (or on) the permit effective date. | January 1 through December 31 | Not Applicable |

Notes to Table E- 10

[1] Include monitoring results for offshore monitoring locations (section 4.1.2 of this MRP) in the monthly SMRs.

**7.2.4. Reporting Protocols**

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

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

7.2.4.1. 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).

7.2.4.2. 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 (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

7.2.4.4. 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.

### 7.2.5. Compliance Determination

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

### 7.2.6. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the dataset contains one or more reported determinations of DNQ or ND, the

Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

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

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

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

7.2.7.3. The Discharger shall add all violations, including violations of receiving water limitations, to CIWQS under the “Violations” tab.

## 7.3. Discharge Monitoring Reports (DMRs)

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

## 7.4. Other Reports

The following reports are required under Special Provisions (section 6.3 of this Order), sections 1, 3, 4, 5, and 6 of this MRP, and the California Code of Regulations (CCR). The reports shall be submitted to the San Diego Water Board using the State Water Board's CIWQS program website, unless otherwise noted. The reports must be signed and certified as required by section 5 of the Standards Provisions (Attachment D). The CIWQS website will provide additional information for SMR submittal in the event of a planned or unplanned service interruption for electronic submittal.

**Table E- 11. Other Reports**

| Report | Location of requirement | Due Date |
|---|---|---|
| ROWD (for reissuance) | Signature Page | No later than 180 days before the Order expiration date [1] |
| Updated Spill and Transboundary Flow Prevention and Response Plan (Flow Prevention/Response Plan) | Section 6.3.2.1.2 | 180 days after the effective date of this Order |
| Daily Canyon Collector Inspection Log | Section 6.3.2.1.2.5.2 | Include with the monthly SMR |
| Revised Flow Prevention/Response Plan | Section 6.3.2.1.3 | No later than 60 days after the close of the comment period |
| Amendment to the Flow Prevention/Response Plan | Section 6.3.2.1.3.1 | Within 30 days of amending the Prevention/Response Plan |
| Agenda and Meeting Summary for biannual technical committee (BTC) meetings on transboundary flow prevention and response | Section 6.3.2.2.1.3 | Within 30 days after the BTC meeting |
| Annual Presentations to the San Diego Water Board | Sections 6.3.2.2.5 and 6.3.5.3.2.4 | Annually as requested by the San Diego Water Board |
| Preliminary Spill and Transboundary Flow Report | Section 6.3.2.3.3 | Within three business days of becoming aware of the spill/flow |
| Certified Spill and Transboundary Flow Report | Section 6.3.2.3.4 | Within 15 calendar days of spill/flow end date |

| Report | Location of requirement | Due Date |
|---|---|---|
| Asset Management Plan | Section 6.3.2.5.1 | Within 180 days of the effective date of this Order |
| Pollutant Minimization Program Annual Status Report | Section 6.3.3.2.5 | Annually on February 1 |
| Certification for new or expanded facilities | Section 6.3.4.1 | Prior to beginning construction of new or expansions of existing treatment facilities |
| South Bay Ocean Outfall Capacity Report | Section 6.3.5.1 | No later than 180 days before the Order expiration date |
| Notification of Influent Significantly Changing | Section 6.3.5.3.1.2 | Within seven days |
| Influent Action Level Study | Section 6.3.5.3.1.3 | With 180 days of the Notification required in Section 6.3.5.1.2 |
| Revised Influent Action Levels | Section 6.3.5.3.1.4 | Within one year of initiating an Influent Action Level Study |
| Agenda and Meeting Summary for BTC meetings on influent and source control | Section 6.3.5.3.2.1.3 | Within 30 days after the BTC meeting |
| Annual Source Control Report | Section 6.3.5.3.3.5 | Annually on March 31 |
| Proposal for additional actions to meet untreated industrial wastewater and pollutant prevention goals | Section 6.3.5.3.3.6 | Within 6 months of becoming aware that the requirements are not sufficient to achieve the goals |
| Annual Biosolids Report | Section 6.3.5.4.8 | Annually on February 19 |
| Resource Recovery Notice | Section 6.3.5.5 | As needed |
| DMR-QA Study | Attachment E, Section 1.7 | Annually on December 31 [2] |
| Initial Investigation TRE Work Plan | Attachment E, Section 3.3.6 | Within 90 days of the effective date of this Order |
| Detailed TRE Work Plan | Attachment E, Section 3.3.8.1 | As needed |
| Interim Ocean Receiving Water Monitoring Report (executive summary) | Attachment E, Section 4.1.5.1.2 | July 1 of the year following the even years (e.g., separate reports for calendar years 2022 (due 7/1/2023), 2024 (due 7/1/2025), and 2026 (due 7/1/2027)) |

| Report | Location of requirement | Due Date |
|---|---|---|
| Biennial Ocean Receiving Water Monitoring and Assessment Report (full assessment) | Attachment E, Section 4.1.5.1.3 | July 1 of the year following the odd years (e.g., biennial reports for calendar years 2020-2021 (due 7/1/2022), 2022-2023 (due 7/1/2024), and 2024-2025 (due 7/1/2026)) |
| Oral/Written Biennial State of the Ocean Report | Attachment E, Section 4.1.5.2 | By December 31 of the year following the odd years (e.g., biennial reports for calendar years 2020-2021 (due 12/2022), 2022-2023 (due 12/2024), and 2024-2025 (due 12/2026)) |
| Tijuana River Valley Work Plan | Attachment E, Section 4.2.4 | Within 90 days of the effective date of this Order |
| Tijuana River Valley Monitoring Report | Attachment E, Section 4.2.5.3.1 | No later than 180 days before the Order expiration date |
| Oral/Written State of the Tijuana River Valley Report | Attachment E, Section 4.2.5.3.2 | No later than 180 days before the Order expiration date |
| CEDEN Certification Statement | Attachment E, Section 4.3 | Annually on March 1 |
| Kelp Bed Canopy Report | Attachment E, Section 5.1 | Annually on October 1 |
| CCAP | Attachment E, Section 6.1 | No later than three years of the effective date of this Order |
| Plume Tracking Progress Report | Attachment E, Section 6.2 | Annually on March 1 |
| Coastal Remote Sensing Study Recommendations Report | Attachment E, Section 6.3 | No later than October 31, 2022 |

Notes to Table E-11

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

[2] See section 1.7 of this MRP for instructions on how to submit the study.

# Attachment F – Fact Sheet

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## TABLES

## ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) incorporates this Fact Sheet as findings of the San Diego Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

### 1. Permit Information

The following table summarizes administrative information related to the Facility:

**Table F-1. Facility Information**

| Type of Information | Facility/Discharger Information |
|---|---|
| WDID | 9 000000732 |
| Discharger | International Boundary and Water Commission, United States Section |
| Name of Discharge Structure | South Bay Outfall (SBOO) |
| Name of Treatment Facility | South Bay International Wastewater Treatment Plant |
| Facility Address | 2995 Clearwater Way<br>San Diego, CA 92154<br>San Diego County |
| Facility Contact, Title and Phone | ~~Daniel Avila, Principal Engineer, (915) 832-4118~~<br>Emily Allen, Area Operations Manager, (619) 662-7601 |
| Authorized Person to Sign and Submit Reports | Same as Facility Contact |
| Mailing Address | 4191 N. Mesa, El Paso, Texas 79902 |
| Billing Address | Same as mailing address |
| Type of Facility | Federally-Owned Treatment Work (FOTW) |
| Major or Minor Facility | Major |
| Threat to Water Quality | 1 |
| Complexity | A |
| Pretreatment Program | Pretreatment Program administered by the Government of Mexico |
| Recycling Requirements | No |
| Facility Permitted Flow | ~~25~~35.0 million gallons per day (MGD) average monthly |
| Facility Design Flow | ~~25~~35.0 MGD |
| Dilution Factor (Dm) | ~~96.4~~94.6 |

| | |
|---|---|
| Zone of Initial Dilution | 30m (98.4ft) |
| Watershed | Pacific Ocean |
| Receiving Water | Pacific Ocean |
| Receiving Water Type | Ocean waters |

**1.1.** The Facility consists of any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature to implement section 201 of the Clean Water Act, or necessary to recycle or reuse water at the most economical cost over the estimated life of the works, including intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment, and their appurtenances; extensions, improvements, remodeling, additions, and alterations thereof; elements essential to provide a reliable recycled supply such as standby treatment units and clear well facilities; and any works, including site acquisition of the land that will be an integral part of the treatment process (including land use for the storage of treated wastewater in land treatment systems prior to land application) or is used for ultimate disposal of residues resulting from such treatment, including but not limited to the following:

South Bay International Wastewater Treatment Plant
Five diversion structure canyon collectors located at:
- Stewart's Drain
- Canyon del Sol
- Silva's Drain
- Smuggler's Gulch
- Goat Canyon

Two pump stations
- Hollister Street Pump Station
- Goat Canyon Pump Station

Two junction boxes
- Junction Box 1
- Junction Box 2

South Bay Land Outfall (SBLO)
South Bay Ocean Outfall (SBOO)
Other associated infrastructure, such as the pipes and conveyances between the diversion structures, pump stations, and the wastewater treatment plant.

Together, these facilities comprise a federally-owned treatment works. These facilities are collectively referred to as the Facility or Facilities in this Order.

The International Boundary and Water Commission, United States Section (USIBWC or Discharger) is the owner of the Facility, noting that the SBLO and SBOO are jointly owned by the Discharger and the City of San Diego. The Discharger operates and maintains the SBLO. The SBOO is operated and maintained by the Discharger and the City of San Diego. The City of San Diego discharges secondary effluent from its South Bay Water Reclamation Plant (SBWRP) to the SBOO through the SBLO under separate waste discharger requirements (WDRs) (Order No. R9-2021-0002, NPDES Permit No.

CA0109045). The Discharger contracts with Veolia Water North America to operate and maintain the other facilities.

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

**1.2.** The Facility discharges wastewater to the Pacific Ocean, a water of the U.S. The Discharger was previously regulated by Order No. R9-2014-0009, as amended by Order Nos. R9-2014-0094, R9-2017-0024 and R9-2019-0012, and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0108928 adopted on June 26, 2014 and expired on July 31, 2019. Attachment B provides a map of the area around the Facility. Attachment C provides flow schematics of the Facility as well as infrastructure in Mexico. The flow schematics in Attachment C are based on conditions as of October 2025 and generally reflect dry weather conditions at the time of this Order.

**1.3.** The Discharger filed a Report of Waste Discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit on March 4, 2019, and supplemental information on March 26, 2019. The application was deemed complete on March 30, 2019. A site visit was conducted on May 15, 2019 and January 16, 2020, 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, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations (CCR), title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

## 2. Facility Description

After periods of tremendous population growth and a long history of inadequate sewerage facilities in Tijuana, Mexico and associated transboundary raw sewage flows, the governments of the U.S. and Mexico in 1990 agreed to build the Facility on the U.S. side of the international border as part of a bilateral program to address environmental pollution in the international border region (USIBWC Minute No. 283 between the U.S. and Mexican sections of the International Boundary and Water Commission). The Facility was built on a 75-acre site in San Ysidro, a community of the City of San Diego, near the international border in the U.S. immediately north of Tijuana's main wastewater pumping station. The Facility is designed to treat to secondary treatment standards up to 25 MGD of raw sewage flows exceeding the capacity of Tijuana's sewage treatment and conveyance facilities, including some low-volume transboundary flows in canyon and gullies that had historically emptied sewage flows exceeding the capacity of Tijuana's sewage treatment and conveyance facilities and treats some transboundary flows in canyon and gullies that empty from Tijuana into the Tijuana River Estuary on the U.S. side of the international border. The Facility was originally planned as a secondary treatment facility; however, due to financial

constraints, the plant was initially constructed as an advanced primary treatment facility in 1996.

In February 2001, the San Diego Water Board filed a complaint in United States District Court, Southern District of California (Court) against the Discharger, alleging violations of the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act at the Facility. The complaint alleged the Discharger violated the terms of its NPDES Permit (San Diego Water Board Order No. 96-50/ NPDES Permit CA0108928) by failing to treat the Facility effluent to secondary treatment standards and by violating other effluent limitations.

On December 6, 2004, the Court issued a final judgment setting a compliance schedule for the Discharger to meet federal and state requirements for secondary treatment standards by constructing an activated sludge secondary treatment process at the Facility to improve effluent quality. Construction of the Facility upgrade was completed in late 2010; however, the Facility had an adjustment period of about one and a half years and did not start to consistently achieve substantial compliance with the NPDES Permit secondary treatment effluent limitations until mid-2012. On June 20, 2013, after about a year of substantial compliance with the secondary treatment effluent limitations, the San Diego Water Board informed the Court of its opinion that the Discharger had complied with the Court's 2004 judgment.

According to the Discharger, in the decades since construction of the SBIWTP, the communities along the border have experienced exponential growth in population and development that has resulted in ongoing transboundary flows of raw sewage, trash, and sediment, exacerbated by aging and deteriorating infrastructure. In the last two decades, the local Mexican utility that operates and manages Tijuana's sewage infrastructure has invested in expanding the city's wastewater collection infrastructure to address direct dischargers or inadequate disposal practices in Mexico. However, overall, the Mexican system has not kept pace with the region's rapid growth, nor has the existing infrastructure in Mexico received sufficient maintenance. Poor conditions of critical wastewater infrastructure in Mexico still results in a percentage of Tijuana's wastewater entering the Tijuana River or Pacific Ocean without treatment.

On May 14, 2018, the San Diego Water Board and California Attorney General Xavier Becerra issued a 60-day Notice of Intent to Sue the USIBWC on behalf of the People of the State of California. Subsequently, the San Diego Water Board filed a Complaint against USIBWC in federal court on September 4, 2018. The Complaint outlines two separate causes of action against USIBWC consistent with the 60-day Notice of Intent to Sue alleging that: 1) discharges from USIBWC's canyon collectors caused by inadequate operations and/or maintenance of those collectors constitute violations of section 301 of the Clean Water Act; and 2) discharges from USIBWC's canyon collectors and pump station, and numerous other monitoring, reporting, and Spill Prevention and Response Plan violations are violations of USIBWC's NPDES permit, constituting violations of section 402 of the Clean Water Act. This case was settled without admission of liability on April 12, 2022.

On May 20, 2025, USIBWC and USEPA announced a planned 10-MGD expansion of the SBIWTP treatment capacity from 25 MGD to 35 MGD and projected completion and startup within 100 days, by August 28, 2025. USIBWC proposed to treat up to 35 MGD of influent wastewater using chemically-enhanced primary treatment (CEPT), also referred to as

advanced primary treatment, followed by 25 MGD of secondary treatment using existing activated sludge processes. CEPT involves the use of coagulants (ferric chloride and polymer) to increase solids removal, compared to sedimentation alone. USIBWC proposed to blend the 10 MGD of advanced primary effluent with the 25 MGD of secondary effluent prior to discharge to the Pacific Ocean via the SBLO and SBOO.

On August 27, 2025, the San Diego Water Board adopted Cease and Desist Order No. R9-2025-0139 (CDO R9-2025-0139), which found that the 10-MGD expansion threatened to violate USIBWC's NPDES permit for the SBIWTP. Further, CDO R9-2025-0139 established interim effluent limitations for USIBWC's 35 MGD of blended advanced primary- and secondary-treated effluent. CDO R9-2025-0139 is applicable through June 30, 2026, at which point USIBWC is required to comply with the permitted effluent limitations in this NPDES Permit.

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

South Bay International Wastewater Treatment Plant (SBIWTP)

The SBIWTP, which is located at 2995 Clearwater Way, San Diego, near the U.S. and Mexico International border, is operated by Veolia Water North America.

Wastewater treatment unit operations and processes at the SBIWTP consist of three mechanical bar screens, one grit removal unit, five primary sedimentation tanks with ferric chloride injection capabilities, polymer injections, seven aeration basins, and 13 secondary clarifiers. The Facility had the capability of adding sodium hypochlorite (chlorine) at the Effluent Blending Structure (EBS) for continuous disinfection of secondary effluent. However, the Discharger has not chlorinated secondary effluent since secondary treatment began at the Facility in 2011, and the Facility would need infrastructure modifications to again add chlorine at the EBS if needed to protect beneficial uses. The Order has a Total Residual Chlorine effluent limitation which would be applicable if chlorine is used in the treatment process. Treated wastewater first flows through the SBLO and then through the SBOO, where it is discharged to the Pacific Ocean. Attachment C provides a flow schematic of the SBIWTP.

The advanced primary treatment facility has a peak hydraulic capacity of 100 MGD, a peak design flow rate of 75 MGD, and an average design flow rate of 25 MGD. The secondary treatment design capacity is 25 MGD with a peaking factor of approximately 2. If flow from the primary treatment units to the secondary treatment units exceeds 49.85 MGD, primary effluent flows exceeding 49.85 MGD bypass the polymer addition and activated sludge processes and discharge directly to the SBOO. Bypasses are prohibited unless they meet the requirements contained in Attachment D of this Order, section 1.7. The reported annual average daily discharge flow between 2016 and 2019 ranges between 22.36 MGD and 24.57 MGD.

Solids from secondary sedimentation tanks are conveyed to three dissolved air flotation units for thickening. Thickened sludge from the dissolved air flotation units and solids collected from the primary sedimentation tanks are sent to an on-site solids handling facility for dewatering using belt-filter presses and lime stabilization. Processed solids are collected onsite and trucked to Mexico for disposal.

The SBIWTP receives domestic and industrial wastewater from the following sources:

- City of Tijuana's municipal collection system;
- Five diversion structures (also referred as canyon collectors), Stewart's Drain, Canyon del Sol, Silva's Drain, Smuggler's Gulch, and Goat Canyon; and
- Transboundary flows from other locations collected by vacuum trucks.

City of Tijuana Sewage Collection System

~~Sewage from the City of Tijuana is conveyed in a 72-inch diameter line to Tijuana's Pumping Plant (Pump Station 1/1A). Pump Station 1/1A includes a 42-inch force main and a conveyance canal with an operational capacity of 36 MGD, which both connect to Mexican WWTPs.~~

~~Pump Station 1/1A typically conveys approximately 25 MGD of this sewage by gravity to Junction Box 1 in the U.S. However, Junction Box 1 contains valves to control the amount of sewage flowing from Tijuana into the Facility. The Discharger has the capacity to increase flows from the City of Tijuana in the event of an interruption of service in Tijuana's sewage treatment system. The sewage flows by gravity from Junction Box 1 to Junction Box 2.~~

Sewage from the City of Tijuana's municipal collection system is conveyed from central Tijuana to PB-1 through the 60-inch International Collector. In addition, PB-1 receives up to 35 MGD of dry-weather river flows intercepted by PB-CILA. An average of approximately 35 MGD is sent from PB-1 to the SBIWTP by gravity, where flows are mixed with any intercepted transboundary flows collected in SBIWTP's five canyon collectors. Additional flows from PB-1 are pumped towards the San Antonio de los Buenos Wastewater Treatment Plant (SAB), combining with sewage from Tijuana's western suburbs along the way.

At SAB, approximately 18 MGD of influent wastewater undergoes a conventional secondary treatment process. Flows greater than 18 MGD bypass SAB and combine with the plant's treated effluent and additional untreated sewage from the Tecolote-La Gloria suburbs of Tijuana. These flows are discharged directly to the shoreline at Punta Bandera.

Canyon Collector Systems

The canyon collector systems are designed to capture and convey dry weather transboundary flows to the SBIWTP for treatment and disposal through the SBOO. These dry weather transboundary flows begin in Mexico and drain north through canyons and ravines across the U.S. – Mexico international border to the Tijuana River Valley in California. The five canyon collector systems located in Smugglers Gulch, Goat Canyon, Canyon del Sol, Stewart's Drain and Silva Drain are considered part of the Facility that is owned and operated by USIBWC and regulated by this Order. Each canyon collector system consists of multiple components, including but not limited to a concrete apron, a weir, a diversion box which functions to trap sediment and floatable debris, and a gravity conveyance to the SBIWTP or pump stations. The canyon collectors were constructed to divert dry weather transboundary flows for treatment and

discharge through the SBOO. The Discharger does not operate the canyon collectors during wet weather.

The maximum design capacity for each of the five canyon collector systems is as follows:

**Table F-2. Canyon Collector Systems Design Capacities**

| Canyon Collector System | Average Flow (MGD) | Peak Flow (MGD) |
|---|---|---|
| Goat Canyon | 2.33 | 7.00 |
| Smuggler's Gulch | 4.67 | 14.00 |
| Canyon del Sol | 0.67 | 2.00 |
| Silva's Drain | 0.33 | 1.00 |
| Stewart's Drain | 1.67 | 5.00 |

The Goat Canyon Canyon Collector System conveys diverted flows by gravity to the Goat Canyon Pump Station. From the Goat Canyon Pump Station, the diverted flows are pumped to the Hollister Street Pump Station. The Smugglers Gulch Canyon Collector System conveys diverted flows by gravity to the Hollister Street Pump Station. From the Hollister Street Pump Station, the diverted flows are pumped to the SBIWTP headworks. The remaining three canyon collector systems located at Silva Drain, Canyon del Sol, and Stewarts Drain ultimately convey diverted flows by gravity to Junction Box 2. Combined flows gathered at Junction Box 2 are conveyed by gravity to the SBIWTP's headworks for treatment and, eventually, disposal through the SBOO.

Flows overflowing or bypassing the canyon collector systems continue north in the natural drainages, potentially polluting the Tijuana River Valley and Estuary, the Tijuana River, and the Pacific Ocean at San Diego beaches near the mouth of the Tijuana River.

Yogurt Canyon

Yogurt Canyon is located between Goat Canyon and the Pacific Ocean, near "El Yogurt Place" at approximately the following coordinates: 32.535293, -117.120101. This canyon is not equipped with a canyon collector connection to the SBIWTP. While this location is not considered to be part of the Facility, flows at Yogurt Canyon are sometimes collected by the Discharger with a vacuum truck and transported to the SBIWTP.

CILA Tijuana River Main Channel Diversion Structure

Dry weather flows equal to or less than 1,000 liters per second (35.3 cubic feet per second, 22.8 MGD) in the Tijuana River that would otherwise flow into the U.S. are currently diverted from the riverbed at ~~the River Diversion Structure (also referred to as Pump Station CILA), located on the Mexican side of the international border, through a line parallel to the 72-inch diameter sewage line to Tijuana's Pumping Plant (Pump Station 1/1A). From Tijuana's Pumping Plant (Pump Station 1/1A), dry weather flows from the Tijuana River are sent south to a discharge point on the Pacific Ocean shoreline at Punta Bandera, located approximately 5.6 miles south of the international border. During wet weather conditions, when any Tijuana River flows are over 1,000 liters per second, or at times when the River Diversion Structure and Pump Station CILA is not working properly, Tijuana River water flows across the international border into the~~

~~U.S. These flows will then infiltrate into the riverbed or continue through the Tijuana River and into the Tijuana River Estuary and into the Pacific Ocean. Currently there is no diversion structure in the Tijuana River on the U.S. side of the international border.~~PB-CILA, located on the Mexican side of the international border, to PB-1. Dry-weather flows greater than 35 MGD, and all wet-weather flows, are not captured by PB-CILA and remain in the Tijuana River as it crosses into the U.S.

## 2.2. Discharge Points and Receiving Waters

The SBLO was completed in March 1994. The SBLO is 12,300 feet long. The SBLO starts at the SBIWTP and ends at the mouth of Goat Canyon, where it connects to the SBOO. The diameter of the SBLO is 144 inches. The SBLO and SBOO were constructed for use by the Discharger and the City of San Diego's SBWRP.

The Discharger jointly owns and operates the SBOO with the City of San Diego. The SBOO was constructed for use by the Discharger and by the City of San Diego's SBWRP. The SBOO begins at an approximately 190-ft deep drop shaft at the SBLO and crosses under land for about 5,000 ft before it starts its ocean drive at the shoreline. The SBOO extends westward from the shoreline south of the mouth of the Tijuana River ~~shoreline~~for approximately 13,600 feet where it connects via an approximate 150-ft long riser to an approximate 5,000-ft long seafloor pipeline. The total distance from the shoreline at this point is ~~approximately18~~approximately 18,600 feet (13,600+5000) which is equivalent to approximately 3.52 miles or 3.06 nautical miles.

The terminus of the ocean outfall and diffusors were placed within the territorial marine waters of the State as defined by California law. Territorial marine waters of the State extend three nautical miles into the Pacific Ocean from the line of mean lower low water marking the seaward limits of inland waters and three nautical miles from the line of mean lower low water on the mainland and each offshore island. While the SBOO is 3.06 nautical miles long, the terminus is within state waters because the SBOO is angled towards the U.S.-Mexico border.

The outfall extends westward approximately 23,600 feet from the SBLO to a depth of 93 feet in the Pacific Ocean. The outfall terminates in a wye diffuser with two 1,980-foot diffusers. Each diffuser leg contains 82 diffuser riser assemblies, and one at the wye structure for a total of 165 diffuser riser assemblies. The SBOO was constructed with a total average design capacity of 174 MGD and a peak hydraulic capacity of 233 MGD. The Facility is permitted to discharge up to ~~25~~35 MGD of blended advanced primary- and secondary treated wastewater to the SBOO, and the SBWRP is permitted to discharge up to 15 MGD of secondary treated wastewater to the SBOO. The effluent from the SBIWTP is combined with the effluent from the City of San Diego's SBWRP within the SBOO prior to discharge to the Pacific Ocean. A maximum of ~~40~~50 MGD of wastewater is permitted to be discharged to the SBOO from these two facilities. To achieve proper effluent velocity and dilution levels, ~~18 diffuser risers (72~~136 open ports~~)~~ are in use on the South leg. The North leg of the diffuser is closed with no open ports. The terminus of the diffuser is located at Latitude 32° 32' 16" North, Longitude 117° 11' 00" West.

During the development of a previous version of this permit, Order No. R9-2014-0009, the San Diego Water Board, with assistance from the State Water Board, determined the minimum initial dilution factor to be 94.6 for the discharge of up to 40 MGD of effluent through the SBOO using the United States Environmental Protection Agency (USEPA)-approved computer modeling package Visual Plumes with the UM3 model. Computer modeling was performed based on characteristics of the SBOO, the effluent, and the receiving water, subject to the input limitations of Visual Plumes. Monthly profiles for the receiving water were developed using receiving water data provided by the Discharger for the time period between June 2002 and April 2005. Initial dilution factors were determined for each monthly profile; the most conservative minimum initial dilution factor was determined using the May profile. Section 4.3.3 of this Fact Sheet includes additional discussion of initial dilution. Additional details of the initial dilution computer modeling performed is provided in Attachment H of Order No. R9-2014-0009 and in the San Diego Water Board records.

Additional dilution modeling conducted in July 2025 in advance of USIBWC's 10-MGD expansion supported the opening of an additional 64 temporary capped ports on the southern leg of the SBOO, increasing the total number of open ports from 72 to 136. USIBWC's dilution modeling indicates the actual dilution factor for the combined 50 MGD discharged to the SBOO from the SBIWTP and SBWRP, with 136 open ports, is 100.6. This is adequately protective and greater than the minimum required initial dilution factor of 94.6.

### 2.3. Summary of Previous Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in Order No. R9-2014-0009 for discharges from the Facility and representative monitoring data obtained at Monitoring Location E-001 (Discharge Point No. 001), from August 2014 to June 2019 were as follows:

**Table F-3. Historical Effluent Limitations and Monitoring Data at Monitoring Location E-001**

| Parameter [1] | Units | Average Monthly Effluent Limitation | Average Weekly Effluent Limitation | Instantaneous Maximum Effluent Limitation | Highest Average Monthly Reported | Highest Average Weekly Reported | Highest Instantaneous Maximum Reported |
|---|---|---|---|---|---|---|---|
| Flow | million gallons per day (MGD) | 25 | -- | -- | 26.4 | -- | -- |
| 5-day carbonaceous biochemical oxygen demand @ 20°C ($CBOD_5$) | milligram per liter (mg/L) | 25 | 40 | -- | 15 | 27 | -- |
| $CBOD_5$ | lbs/day [2] | 5,213 | 8,340 | -- | 3,034 | 5,755 | -- |
| $CBOD_5$ | % Removal | 85 [2] | -- | -- | 96 [3] | -- | -- |
| Total Suspended Solids (TSS) | mg/L | 30 | 45 | -- | 18 | 35 | -- |
| | lbs/day [2] | 6,255 | 9,383 | -- | 3,737 | 7,343 | -- |
| | % Removal | 85 [2] | -- | -- | 96 [3] | -- | -- |
| pH | standard units | -- | -- | 6.0 – 9.0 [4] | -- | -- | 6.48 – 7.81 [3] |
| Oil and Grease | mg/L | 25 | 40 | 75 | <1.6 | <1.6 | <1.6 |
| | lbs/day [2] | 5,213 | 8,340 | 9,383 | -- [5] | -- [5] | -- [5] |
| Settleable Solids | milliliter per liter (ml/L) | 1.0 | 1.5 | 3.0 | 0.02 | <0.10 | 0.30 |
| Turbidity | nephelometric turbidity unit (NTU) | 75 | 100 | 225 | 4.14 | 7.48 | 30.3 |

Notes for Table F-3

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

[2] The Mass Emission Rate (MER) limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the SBIWTP (25.0 MGD) and C is the concentration (mg/L).
[3] Lowest average monthly percent removal.
[4] Minimum and maximum value.
[5] Not reported. All concentration-based values were non-detect (ND).

**Table F-4. Historic Effluent Limitations and Monitoring Data at E-001 (Protection of Aquatic Life)**

| Parameter [1][2] | Units [3] | Six-Month Median Effluent Limitation | Maximum Daily Effluent Limitation | Instantaneous Maximum Effluent Limitation | Highest Six-Month Median Reported | Highest Maximum Daily Reported | Highest Instantaneous Maximum Reported |
|---|---|---|---|---|---|---|---|
| Mercury, Total Recoverable | µg/L | 3.78E+00 | 1.52E+01 | 3.82E+01 | <9.0E-02 | 5.78E+00 | 5.78E+00 |
| | lbs/day | 7.87E-01 | 3.18E+00 | 7.96E+00 | -- [4] | 1.31E+00 | 1.31E+00 |
| Zinc, Total Recoverable | µg/L | 1.16E+03 | 6.89E+03 | 1.84E+04 | 3.90E+01 | 5.50E+02 | 5.50E+02 |
| | lbs/day | 2.41E+02 | 1.44E+03 | 3.83E+03 | 7.71E+00 | 1.12E+02 | 1.12E+02 |
| Chronic Toxicity | TUc | -- | 95.6 | -- | -- | 200 | -- |
| Acute Toxicity | TUa | -- | 3.2 | -- | -- | 1.87 | -- |

Notes for Table F-4
[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.
[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1 x 10-2 or 0.061, 6.1E+02 represents 6.1 x 102 or 610, and 6.1E+00 represents 6.1 x 100 or 6.1.
[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the SBIWTP (25.0 MGD) and C is the concentration (mg/L).
[4] Not reported. All concentration-based values were ND.

**Table F-5. Historic Effluent Limitations and Monitoring Data at EFF-001 (Protection of Marine Human Health)**

| Parameter [1][2] | Units [3] | 30-day Average Effluent Limitation | Highest 30-day Average Reported |
|---|---|---|---|
| Thallium, Total Recoverable | µg/L | 1.91E+03 | <2.20E+00 |
| Thallium, Total Recoverable | lbs/day | 3.99E+01 | -- [4] |
| Tributyltin | µg/L | 1.34E-01 | <4.00E-02 |
| Tributyltin | lbs/day | 2.79E-02 | -- [4] |
| Benzidine | µg/L | 6.60E-03 | <1.00E+00 |
| Benzidine | lbs/day | 1.38E-03 | -- [4] |
| Chlordane | µg/L | 2.20E-03 | <1.40E-02 |
| Chlordane | lbs/day | 4.58E-04 | -- [4] |
| Chlorodibromomethane | µg/L | 8.22E+02 | <3.60E-01 |
| Chlorodibromomethane | lbs/day | 1.71E+02 | -- [4] |
| DDT | µg/L | 1.63E-02 | <7.00E-03 |
| DDT | lbs/day | 3.39E-03 | -- [4] |
| Heptachlor Epoxide | µg/L | 1.91E-03 | <3.00E-03 |
| Heptachlor Epoxide | lbs/day | 3.99E-04 | -- [4] |
| Hexachlorobenzene | µg/L | 2.01E-02 | <3.50E-01 |
| Hexachlorobenzene | lbs/day | 4.19E-03 | -- [4] |
| Polychlorinated Biphenyls (PCBs) | µg/L | 1.82E-03 | <4.00E-01 |
| PCBs | lbs/day | 3.79E-04 | -- [4] |
| TCDD equivalents | µg/L | 3.73E-07 | 9.09E-07 |
| TCDD equivalents | lbs/day | 7.77E-08 | 1.88E-07 |
| Toxaphene | µg/L | 2.01E-02 | <5.00E-01 |
| Toxaphene | lbs/day | 4.19E-04 | -- [4] |

Notes for Table F-5

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

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

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the SBIWTP (25.0 MGD) and C is the concentration (mg/L).

[4] Not reported. All concentration-based values were ND.

## 2.4. Compliance Summary

As of December 2020, the Discharger has reported the following violations of Order No. R9-2014-0009.

### 2.4.1. Order R9-2014-0009, section III.A, prohibits the discharge of waste at a location other than Discharge Point No. 001.

2.4.1.1. In February 2015, approximately 54,000 gallons was discharged from the Goat Canyon Pump Station to the Tijuana Canal.

2.4.1.2. In October 2015, 5 gallons of untreated wastewater was spilled at Storm Drain #3.

2.4.1.3. In October 2015, 20 gallons of untreated wastewater was spilled at Storm Drain #3.

### 2.1.2. Order No. R9-2014-0009, section IV.A.1.a, Table 4, states that the monthly average effluent limit for flow is 25 MGD at Monitoring Location EFF-001.

2.1.2.1. The Discharger reported a monthly average value for flow above the effluent limit in seven of their monthly monitoring reports at Monitoring Location EFF-001. The effluent limitation exceedances ranged from 25.02 to 30.95 MGD. The Discharger attributed the source of the exceedance to Mexico's lack of pumping capacity and is continuing to work with Mexico to control influent flows.

### 2.4.3. Order No. R9-2014-0009, section IV.A.1.a, Table 4, states that the maximum daily effluent limit for chronic toxicity is 95.6 TUc at Monitoring Location EFF-001.

2.4.3.1. The Discharger reported a value for chronic toxicity above the effluent limit in their October 2015, March 2017, and September 2020 monthly monitoring reports at Monitoring Location EFF-001. The effluent limitation exceedances ranged from 100 to 200 TUc. The Discharger notified Mexico of the toxic load.

### 2.4.4. Order R9-2014-0009, section VI.C.2. requires reporting of sample results following a Type A spill.

2.4.4.1. The sample results for multiple parameters were not submitted following a Type A spill eight times during the previous permit term.

### 2.4.5. Order No. R9-2014-0009, section VI.C.2.b.v. requires the Discharger prepare a presentation when transboundary flows occur during a quarter.

2.4.5.1. The first quarterly report for 2015 stated that there was transboundary flow, but no presentation was prepared. Additionally, the one-page summary reported for the quarter was the same as the quarterly report for the fourth quarter of 2014.

### 2.4.6. Order R9-2014-0009, sections VI.C.2.b.v, VI.C.2.b.vi, VI.C.5.b.iv, and VI.C.5.b.v.a require the Discharger to meet with CILA quarterly to share presentations and/or information sheets and answer questions about the content.

2.4.6.1. The Discharger did not meet with CILA during the fourth quarter of 2015, the first quarter of 2016, and the second quarter of 2016. Information was only provided by email.

**2.4.7. Order No. R9-2014-0009, sections VI.C.2.b.vi and VI.C.5.b.v states that the Discharger must provide monthly monitoring reports, and quarterly presentations, and information sheets in Spanish or request in writing that CILA translate the documents.**

2.4.7.1. The Discharger provided monthly monitoring reports in English only and did not request a translation for 26 of the monthly monitoring reports and six of the quarterly presentations during the previous permit term.

**2.4.8. Order R9-2014-0009, section VI.C.2.d. requires a detailed summary or facility spills or report that no spills occurred be included in monthly monitoring reports.**

2.4.8.1. The December 2015 and May 2016 monthly monitoring reports did not include spill details.

**2.4.9. Order R9-2014-0009, Attachment E, section III.A, Table E-2 requires the Discharger to report influent monitoring results for the monthly monitoring reports at Monitoring Location INF-001.**

2.4.9.1. The October 2017 monthly monitoring report did not include influent monitoring results at Monitoring Location INF-001.

**2.4.10. Order R9-2014-0009, Attachment E, sections III.A and III.B., Tables E-2 and E-3 require the Discharger to report influent and effluent monitoring results for 4,6-dinitro-2-methylphenol and halomethanes in the quarterly monitoring reports for Monitoring Locations INF-001 and EFF-001.**

2.4.10.1. The third quarter monitoring report for 2017 did not include influent and effluent monitoring results for 4,6-dinitro-2-methylphenol and halomethanes at Monitoring Locations INF-001 and EFF-001.

**2.4.11. Order R9-2014-0009, Attachment E, sections III.A and III.B, Tables E-2 and E-3 requires the reporting of influent and effluent monitoring results for 4,6-dinitro-2-methylphenol at Monitoring Locations INF-001 and EFF-001.**

2.4.11.1. The second quarter monitoring report did not include influent and effluent monitoring results for 4,6-dinitro-2-methylphenol at Monitoring Locations INF-001 and EFF-001.

**2.4.12. Order R9-2014-0009, Attachment E, section III.B, Table E-3 requires the reporting of effluent monitoring results for benzidine, chlordane, DDT, dibromochloromethane, heptachlor epoxide, hexachlorobenzene, PCBs, tributyltin, toxaphene, and TCDD equivalents at Monitoring Location EFF-001.**

2.4.12.1. The fourth quarter monitoring report for 2016 did not include results for benzidine, chlordane, DDT, dibromochloromethane, heptachlor epoxide, hexachlorobenzene, PCBs, tributyltin, toxaphene, and TCDD equivalents at Monitoring Location EFF-001.

**2.4.13. Order R9-2014-0009, Attachment E, section III.B, Table E-3 requires the Discharger to report mass emission rates for TCDD equivalents for the quarterly monitoring report at Monitoring Location EFF-001.**

2.4.13.1. The third quarter monitoring report for 2016 did not include mass emission rates for TCDD equivalents at Monitoring Location EFF-001.

**2.4.14. Order No. R9-2014-0009, Attachment E, section III.C, Table E-4 states that chronic toxicity shall be sampled once per week at Monitoring Location EFF-001.**

2.4.14.1. The February 2017 monthly monitoring report did not include monitoring results for the week of February 19 at Monitoring Location EFF-001

2.4.14.2. The April 2017 monthly monitoring report did not include monitoring results for the week of April 16 at Monitoring Location EFF-001

2.4.14.3. The October 2015 monthly monitoring report did not include monitoring results for chronic toxicity at Monitoring Location EFF-001. The Discharger stated that this was due to the poor condition of the test species. To prevent future occurrence, the new contract lab improved incubation, collection, and storage of the test species.

**2.4.15. Order No. R9-2014-0009, Attachment E, section VIII.A. states that the Discharger must include whether or not there was an actual or potential adverse effect attributable to the influent on the Facility treatment works in their monthly monitoring reports.**

2.4.15.1. The Discharger did not state whether or not there was an actual or potential adverse effect attributable to the influent on the Facility treatment works for 12 of the monthly monitoring reports during the previous permit term.

**2.4.16. Order No. R9-2014-0009 states reporting requirements for the Discharger, including due dates for monitoring reports, required plans, and special reports.**

2.4.16.1. The Discharger submitted monitoring reports, required plans, or special reports late 24 times during the previous permit term.

**2.4.17. Order No. R9-2014-0009 , states the effluent limitations for the following parameters at Monitoring Location EFF-001 as follows in the table below.**

2.4.17.1 The Discharger reported a value for the following parameters above the effluent limit in their monthly monitoring reports at Monitoring Location EFF-001. The effluent limitation exceedances are listed in the table blow.

| Parameter | Period | Requirement | Result |
|---|---|---|---|
| CBOD | November 2020 | 85% Removal | 80.8% Removal |
| CBOD | December 2020 | 85% Removal | 84.6% Removal |
| CBOD | November 2020 | 25 mg/L AMEL | 44 mg/L |
| CBOD | December 2020 | 25 mg/L AMEL | 34 mg/L |
| CBOD | November 2020 | 5,213 lbs/day AMEL | 11,422 lbs/day |
| CBOD | December 2020 | 5,213 lbs/day AMEL | 7,864 lbs/day |

| Parameter | Period | Requirement | Result |
|---|---|---|---|
| CBOD | Week of 11/21/20 | 40 mg/L AWEL | 51 mg/L |
| CBOD | Week of 11/28/20 | 40 mg/L AWEL | 81 mg/L |
| CBOD | Week of 12/5/20 | 40 mg/L AWEL | 48.71 mg/L |
| CBOD | Week of 11/21/20 | 8,340 lbs/day | 13,069 lbs/day |
| CBOD | Week of 11/28/20 | 8,340 lbs/day | 21,328 lbs/day |
| CBOD | Week of 12/5/20 | 8,340 lbs/day | 11,746 lbs/day |
| CBOD | Week of 12/12/20 | 8,340 lbs/day | 8,943 lbs/day |
| TSS | November 2020 | 85% Removal | 67.2% Removal |
| TSS | December 2020 | 85% Removal | 76.6% Removal |
| TSS | November 2020 | 30 mg/L AMEL | 97 mg/L |
| TSS | December 2020 | 30 mg/L AMEL | 67 mg/L |
| TSS | November 2020 | 6,255 lbs/day AMEL | 25,137 lbs/day |
| TSS | December 2020 | 6,255 lbs/day AMEL | 15,719 lbs/day |
| TSS | Week of 11/21/20 | 45 mg/L AWEL | 143 mg/L |
| TSS | Week of 11/28/20 | 45 mg/L AWEL | 175 mg/L |
| TSS | Week of 12/5/20 | 45 mg/L AWEL | 106 mg/L |
| TSS | Week of 12/12/20 | 45 mg/L AWEL | 71 mg/L |
| TSS | Week of 12/26/20 | 45 mg/L AWEL | 59 mg/L |
| TSS | Week of 11/21/20 | 9,383 lbs/day AWEL | 36,667 lbs/day |
| TSS | Week of 11/28/20 | 9,383 lbs/day AWEL | 46,089 lbs/day |
| TSS | Week of 12/5/20 | 9,383 lbs/day AWEL | 25,582 lbs/day |
| TSS | Week of 12/12/20 | 9,383 lbs/day AWEL | 16,500 lbs/day |
| TSS | Week of 12/19/20 | 9,383 lbs/day AWEL | 10,074 lbs/day |
| TSS | Week of 12/26/20 | 9,383 lbs/day AWEL | 13,559 lbs/day |
| Settleable Solids | November 2020 | 1.0 mL/L AMEL | 1.05 mL/L |
| Settleable Solids | Week of 11/21/20 | 1.5 mL/L AWEL | 3.80 mL/L |
| Settleable Solids | 11/18/20 | 3.0 mL/L Inst. Max. | 3.5 mL/L |
| Settleable Solids | 11/19/20 | 3.0 mL/L Inst. Max. | 15 mL/L |

| Parameter | Period | Requirement | Result |
|---|---|---|---|
| Settleable Solids | 11/20/20 | 3.0 mL/L Inst. Max. | 7.5 mL/L |

### 2.5. Planned Changes

~~As noted in its ROWD, the~~ The Discharger ~~has no planned changes~~is in the process of a progressive design build to expand the ~~Facility during~~SBIWTP to 50 MGD of full secondary treatment. USIBWC and USEPA leadership have communicated a target completion date of December 2027, which is outside of the term of this Order.

## 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 (Water Code) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U. S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It serves as an NPDES permit authorizing the Discharger to discharge into waters of the U.S. at the discharge location described in Table 1 subject to the WDRs in this Order.

Nothing in this permit shall require the Discharger to disclose information that the Discharger determines: (1) is subject to attorney-client, attorney work-product, or deliberative process privilege, (2) is subject to archival inviolability under 22 U.S.C. § 288a(c), or (3) concerns information provided to or from a foreign government or international organization in confidence. Notwithstanding the foregoing, nothing in this permit shall be considered a waiver of the IBWC's privileges and immunities.

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

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

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

#### 3.3.1. Water Quality Control Plan

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

Board (State Water Board). Beneficial uses applicable to the Pacific Ocean specified in the Basin Plan are summarized in Table F-6:

**Table F-6. Basin Plan Beneficial Uses**

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

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

### 3.3.2. California Ocean Plan

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

**Table F-7. Ocean Plan Beneficial Uses**

| Discharge Point | Receiving Water | Beneficial Uses |
|---|---|---|
| 001 | Pacific Ocean | Industrial water supply (IND); water contact recreation (REC-1) and non-contact recreation (REC-2), including aesthetic enjoyment; navigation (NAV); commercial and sport fishing (COMM); mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS) ; rare and endangered species (RARE); marine habitat (MAR); fish migration; fish spawning (SPWN) and shellfish harvesting (SHELL). |

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

### 3.3.3. 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. Anti-backsliding regulations found at 40 CFR 122.44(l) prohibit reissuing or modifying an NPDES permit to include effluent limitations less stringent than in the previous permit. Effluent limitations may be relaxed where one of the exceptions described in 40 CFR 122.44(l) are met including exceptions involving technical mistakes or mistaken interpretations of law.

### 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 limitations, receiving water limits, and other requirements to protect the beneficial uses of waters of the State, including protecting rare and endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

### 3.3.6. Sewage Sludge and Biosolids

This Order does not authorize any act that results in violation of requirements administered by USEPA to implement 40 CFR part 503, *Standards for the Use or Disposal of Sewage Sludge*. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 CFR part 503 that are under USEPA's enforcement authority.

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

In August 2018, USEPA-approved the list of impaired water bodies, prepared by the State Water Board pursuant to CWA section 303(d), which are not expected to meet applicable water quality standards after implementation of technology-based effluent

limitations (TBELs) for point sources. The 303(d) list for waters in the Pacific Ocean in the vicinity of the SBOO include:

- Pacific Ocean Shoreline, Otay Valley HA, at Carnation Ave and Camp Surf Jetty for indicator bacteria;
- Pacific Ocean Shoreline, Imperial Beach Pier for indicator bacteria (total coliform for SHELL), PCBs, and trash;
- Pacific Ocean Shoreline, Tijuana HU, at end of Seacoast Drive for indicator bacteria (enterococcus for REC-1 and total coliform for SHELL beneficial use);
- Pacific Ocean Shoreline, Tijuana HU, at 3/4 mile North of Tijuana River for indicator bacteria (enterococcus for REC-1 and total coliform for SHELL beneficial use);
- Pacific Ocean Shoreline, Tijuana HU, at Cortez Avenue for indicator bacteria (total coliform for SHELL beneficial use);
- Pacific Ocean Shoreline, Tijuana HU, at Tijuana River mouth for indicator bacteria (enterococcus, fecal coliform, and total coliform);
- Pacific Ocean Shoreline, Tijuana HU, at Monument Road for indicator bacteria (enterococcus, fecal coliform, and total coliform for REC-1 and total coliform for SHELL beneficial use); and
- Pacific Ocean Shoreline, Tijuana HU, at the international border for indicator bacteria (total coliform for SHELL beneficial use).

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

## 3.5. Other Plans, Policies and Regulations

### 3.5.1. Secondary Treatment Regulations

Part 133 of 40 CFR establishes the minimum levels of effluent quality to be achieved by secondary treatment. Because the Facility is a federally-owned treatment works, secondary treatment requirements are not directly applicable. However, 40 CFR section 125.3 allows the development of case-by-case technology-based effluent limitations (TBELs) if effluent limitations guidelines (ELGs) have not been developed for non-publicly owned treatment works. USEPA has not promulgated ELGs for federally-owned treatment works. Pursuant to 40 CFR section 125.3, the San Diego Water Board is exercising its discretion to develop TBELs on a case-by-case basis based on best professional Judgment (BPJ) under section 402 of the federal Clean Water Act.

~~The Facility is a federally-owned treatment works that treats wastewater of similar quality to POTWs and includes similar treatment processes as POTWs. Since the operation of the Facility is comparable to a POTW, the San Diego Water Board, based on BPJ, found that application of the secondary treatment standards are appropriate for this Facility. Based on the considerations required in 40 CFR section 125.3(d), the San Diego Water Board found that the application of secondary treatment standards~~

~~are appropriate given the costs, age, type of facility, engineering aspects, processes, and environmental impacts. Thus, secondary standards have been implemented based on BPJ, and incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations. The secondary treatment standards were also included in the previous order as TBELs and were therefore carried over in this Order.~~

### 3.5.2. Storm Water

Pursuant to Order No 2014-0057-DWQ, NPDES Permit No. CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities* (Storm Water Order), sewerage treatment plants are classified (per Occupational Safety and Health Administration) as Standard Industrial Classification (SIC) code 4952 or Sewerage Systems. SIC code 4952 (https://www.waterboards.ca.gov/water_issues/programs/stormwater/sicnum.shtml) falls within the Regulated SIC Code for enrollment under the Storm Water Order. The eligibility for enrollment under the Order is not based on treatment design flow or capacity of the sewerage treatment plants. It is the industrial activity that is regulated. The Facility and SBWRP have the same SIC code (4952) and are enrolled under the Storm Water Order. The list of SIC codes can be found at https://www.waterboards.ca.gov/water_issues/programs/stormwater/sicnum.shtml.

## 4. Rationale for Effluent Limitations and Discharge Specifications

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the U.S. 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.

### 4.1. Discharge Prohibitions

This Order retains the discharge prohibitions from Order No. R9-2014-0009, as amended, 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. In some circumstances, discharges to land may also be a violation of the CWA and subject to third party lawsuits. (*County of Maui, Hawaii v. Hawaii Wildlife Fund* (2020) 140 S.Ct. 1462.)

**4.1.1.** Order No. R9-2014-0009 contained Discharge Prohibition III.A, which prohibited discharges to a location other than Discharge Point No. 001, unless specifically regulated by Order No. R9-2014-0009 or separate WDRs. This prohibition has been revised in this Order as Discharge Prohibition 3.1. This Order includes a deemed

compliance pathway in which the Discharger will be deemed in compliance with Discharge Prohibition 3.1 with respect to dry weather canyon collector Spill Events (as described in section 6.3.2.1.1.2 of this Order) as long as it is implementing its Spill and Transboundary Flow Event Prevention and Response Plan, as required by sections 6.3.2.1.2 and 6.3.2.1.3 of the Order, consistent with the actions and schedules contained therein. In addition to being a component of proper operations and maintenance of the Facility, implementation of the Spill and Transboundary Flow Event Prevention and Response Plan will also reduce the number of Canyon Collector Transboundary Flow Events that reach and impact the Tijuana River Valley, Pacific Ocean, and/or nearby beaches with recreational beneficial uses. Discharge Prohibition 3.1 is consistent with the Dischargers' obligation to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances). (See Attachment D, Section 1.4.) Discharge Prohibition 3.1 does not apply to wet weather Canyon Collector Flow Events.

Discharge Prohibition 3.1 shall not be construed as evidence that Canyon Collector Transboundary Flow Events are or are not discharges of pollutants within the meaning of the Clean Water Act.

**4.1.2.** Order No. R9-2014-0009 contained Discharge Prohibitions III.B and III.C, which required compliance with the discharge prohibitions of the Ocean Plan and Basin Plan, respectively. These prohibitions have been retained in this Order as Discharge Prohibitions 3.2 and 3.3.

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

### 4.2.1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR sections 122.44 and 125.3 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. Technology-based effluent limitations require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Facility to use any available control techniques to meet the effluent limits.

For POTWs, TBELs are required based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards pursuant to section 301(b)(1)(B) of the CWA and federal regulations at 40 CFR 125.3(a)(1). USEPA developed secondary treatment regulations, which are specified in 40 CFR part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD), total suspended solids (TSS), and pH.

However, federally-owned treatment plants are not POTWs (since they are not owned by a State or municipality). Thus, they are subject to permit limits based on Best Practicable Control Technology Currently Available (BPT), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), and/or New Source Performance Standards (NSPS). (Mem. from Martha G.

Prothro, United States Environmental Protection Agency, to Water Management Division Directors, Regions I - X (Apr. 16, 1987), at https://www3.epa.gov/npdes/pubs/60_4-87.txt, as of Jan. 4, 2021.)

40 CFR section 125.3 allows the development of case-by-case TBELs if ELGs have not been developed for non-POTWs. USEPA has not promulgated ELGs for federally-owned treatment works. Pursuant to 40 CFR section 125.3, the San Diego Water Board is authorized to develop TBELs on a case-by-case basis based on BPJ under section 402 of the federal Clean Water Act.

### 4.2.2. Applicable Technology-Based Effluent Limitations (TBELs)

#### 4.2.2.1. Federal Regulations

40 CFR section 125.3 allows the development of case-by-case TBELs if ELGs have not been developed for non-POTWs. USEPA has not promulgated ELGs for federally-owned treatment works. Pursuant to 40 CFR section 125.3, the San Diego Water Board is exercising its discretion to develop TBELs on a case-by-case basis based on BPJ under section 402 of the federal Clean Water Act.

~~The Facility is a federally-owned treatment works that treats wastewater of similar quality to POTWs and includes similar treatment processes as POTWs. The Facility treats wastes made up of sanitary and industrial waste, consisting of pollutants of concern similar to those characteristics of discharges to POTWs. As such, the Facility's treatment train is consistent with typical sanitary waste treatment found at POTWs. Because the characteristics of the influent, and the design and operation of the Facility, are similar to that of a POTWs, the San Diego Water Board, based on BPJ, continues to find that application of the secondary treatment standards are appropriate for this Facility.~~

~~Based on the considerations required in 40 CFR section 125.3(d), the San Diego Water Board found that the application of secondary treatment standards are appropriate and reasonable given the costs, age, type of facility, engineering aspects, processes, and environmental impacts. Thus, secondary standards have been implemented based on BPJ, and incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations. The secondary treatment standards were also included in the previous order as TBELs and were therefore carried over in this Order.~~

~~Part 133 of 40 CFR establishes the minimum weekly and monthly average level of effluent quality attainable by secondary treatment for BOD5 and TSS. Section 133.102(a)(4) of 40 CFR allows for effluent limitations for $CBOD_5$ to be applied in lieu of effluent limitations for $BOD_5$ where $BOD_5$ may not provide a reliable measure of the oxygen demand of the effluent. USEPA has determined that a 30-day average effluent limitation of 25 mg/L and a 7-day average effluent limitation of 40 mg/L for CBOD5 are effectively equivalent to the secondary treatment standards for $BOD_5$. Consistent with Order No. R9-2014-0009, this Order includes effluent limitations for $CBOD_5$.~~

Section 133.102 of 40 CFR, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal of $CBOD_5$ and TSS shall not be less than 85 percent. Consistent with This Order establishes new concentration-based TBELs in accordance with modeling results submitted by USIBWC to the San Diego Water Board on August 4, 2025. The modelled results incorporate biological, chemical, and physical processes, and concentrate on conventionally regulated wastewater parameters, such as CBOD5, TSS, and ammonia. This model was run to assess the best available technology at this time, in light of the 10 MGD expansion and blending of advanced primary-treated and secondary-treated effluent, and the results were used to establish the TBELs for $CBOD_5$, TSS, settleable solids, and turbidity in this 2026 amendment. Table 2 of this Order contains TBELs for effluent discharged from the SBIWTP.

Order No. R9-2014-0009, this Order contains limitations requiring an average of 85 percent removal of $CBOD_5$ and TSS over each calendar month.

The secondary treatment regulations at 40 CFR part 133 also require that pH be maintained between 6.0 and 9.0 standard units.

Section 122.45(d) of 40 CFR require that all permit limitations be expressed, unless impracticable, as average monthly effluent limitations (AMELs) and average weekly effluent limitations (AWELs) for POTWs. TBELs based on secondary treatment standards for $CBOD_5$, TSS, and pH are summarized in Table F-7 below, applying AMELs in lieu of 30-day average and AWELs in lieu of 7-day average.

**Table F-8. Summary of TBELs Based on Secondary Treatment Standards**

| Parameter [1] | Unit | Average Monthly Effluent Limitation | Average Weekly Effluent Limitation | Instantaneous Minimum Effluent Limitation | Instantaneous Maximum Effluent Limitation |
|---|---|---|---|---|---|
| $CBOD_5$ | mg/L | 25 | 40 | -- | -- |
| $CBOD_5$ | % Removal | ≥85 | -- | -- | -- |
| TSS | mg/L | 30 | 45 | -- | -- |
| TSS | % Removal | ≥85 | -- | -- | -- |
| pH | standard units | -- | -- | 6.0 | 9.0 |

Note for Table F-8

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

4.2.2.2. **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 Pacific Ocean, effluent quality requirements for waste discharges, discharge prohibitions, and general provisions. Further, Table

4 of the Ocean Plan establishes TBELs for ~~wastewater facilities~~publicly owned treatment works and industrial facilities for which effluent limitation guidelines have not been established. ~~Consistent with~~ Because these TBELs do not apply to federally owned treatment works, the San Diego Water Board is exercising its discretion to develop TBELs on a case-by-case basis~~Order No. R9-2014-0009, numeric effluent limitations~~ based on ~~Table 4~~BPJ under section 402 of the ~~Ocean Plan are being established in~~federal Clean Water Act. Table 2 of this Order contains TBELs for effluent discharged from the SBIWTP.

~~Because secondary treatment standards contain effluent limitations for TSS that are more stringent than Table 4 of the Ocean Plan, the more stringent effluent limitations for TSS will be applied to discharges from the Facility.~~

~~Effluent limitations based on Table 4 of the Ocean Plan for oil and grease, settleable solids, turbidity, and pH have been retained from Order No. R9-2014-0009. The TBELs from the Ocean Plan are summarized in Table F-9:~~

**~~Table F-9. Summary of TBELs on Table 4 of the Ocean Plan~~**

| ~~Parameter [1]~~ | ~~Unit~~ | ~~Average Monthly Effluent Limitation~~ | ~~Average Weekly Effluent Limitation~~ | ~~Instantaneous Maximum Effluent Limitation~~ |
|---|---|---|---|---|
| ~~Oil and Grease~~ | ~~mg/L~~ | ~~25~~ | ~~40~~ | ~~75~~ |
| ~~TSS~~ | ~~mg/L~~ | ~~60 [2]~~ | ~~--~~ | ~~--~~ |
| ~~TSS~~ | ~~% Removal~~ | ~~75 [2]~~ | ~~--~~ | ~~--~~ |
| ~~Settleable Solids~~ | ~~ml/L~~ | ~~1.0~~ | ~~1.5~~ | ~~3.0~~ |
| ~~Turbidity~~ | ~~NTU~~ | ~~75~~ | ~~100~~ | ~~225~~ |
| ~~pH~~ | ~~standard units~~ | ~~--~~ | ~~--~~ | ~~Within the limits of 6.0 to 9.0 at all times~~ |

~~Note for Table F-9~~

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

~~[2] Table 4 of the Ocean Plan specifies 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. Secondary treatment standards are more stringent than this limitation and have been applied in this Order.~~

#### 4.2.2.3. Effluent Flow

The average monthly effluent limitation for flow of ~~25~~35.0 MGD ~~has been retained from Order No. R9-2014-0009 and~~ is based on the Facility's ~~secondary~~advanced primary treatment ~~design~~ capacity. Due to limited secondary treatment capacity at the SBIWTP, USIBWC treats up to 35 MGD to advanced primary standards, with 25 MGD proceeding to secondary treatment. Flows in excess of 25 MGD only undergo advanced primary treatment, and the two types of effluent are blended prior to

entering the SBOO, which discharges approximately 3.5 miles offshore. The flow effluent limitation is required to ensure the proper operation and maintenance of facilities and systems of treatment and control (including the land outfall). Proper operation includes ensuring wastewater effluent flows stay within the design capacity of the process treatment units. Operating beyond their design capacity may result in insufficient treatment, discharges that threaten beneficial uses, and violations of this Order. The limitation on flow is not functionally different than a prohibition on flows in excess of the design criteria.

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

### 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 40 CFR section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan and Ocean Plan and achieve applicable water quality objectives and criteria 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:

- Six-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total chlorine residual and chronic toxicity, for the protection of marine aquatic life.
- Monthly average objectives for 20 non-carcinogenic chemicals for the protection of human health. These have been applied as AMELs.
- Monthly average objectives for 42 carcinogenic chemicals for the protection of human health. These have been applied as AMELs.
- Daily maximum objectives for acute and chronic toxicity.

### 4.3.3. Determining the Need for WQBELs

The San Diego Water Board evaluated the need for effluent limitations for non-conventional and toxic pollutant parameters, based on water quality objectives in Table 3 of the Ocean Plan. The evaluation was performed in accordance with 40 CFR section 122.44(d) and guidance for statistically determining the "reasonable potential" for a discharged pollutant to exceed an objective, as outlined in the revised *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-90-001, 1991) and the Ocean Plan Reasonable Potential Analysis (RPA) Amendment that was adopted by the State Water Board on April 21, 2005. The statistical approach combines knowledge of effluent variability (as estimated by a coefficient of variation) with the uncertainty due to a limited amount of effluent data to estimate a maximum effluent value at a high level of confidence. This estimated maximum effluent value is based on a lognormal distribution of daily effluent values. Projected receiving water values (based on the estimated maximum effluent value or the reported maximum effluent value and minimum ~~probably~~probable initial dilution) can then be compared to the appropriate objective to determine potential for an exceedance of that objective and the need for an effluent limitation. According to the Ocean Plan amendment, the RPA can yield three endpoints: 1) Endpoint 1, an effluent limitation is required and monitoring is required; 2) Endpoint 2, an effluent limitation is not required and the San Diego Water Board may require monitoring; and 3) Endpoint 3, the RPA is inconclusive, monitoring is required, and an existing effluent limitation may be retained or a permit reopener clause may be included to allow inclusion of an effluent limitation if future monitoring warrants the inclusion. Endpoint 3 is typically the result when there are fewer than 16 data points and all are censored data (i.e., below quantitation or method detection levels for an analytical procedure).

The implementation provisions for Table 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 2006, the San Diego Water Board, with assistance from the State Water Board, had determined the minimum initial dilution factor ($D_m$) for the SBOO to be 94.6, equating to an initial dilution, of dilution ratio, of 94.6 parts seawater to 1-part wastewater (94.6:1). This determination was based on a total flow rate of 40.0 MGD from the Facility and SBWRP. In the ROWD, the Discharger did not note any significant changes that would alter the previously determined dilution characteristics. Therefore, the previous dilution ratio of 94.6 to 1 has been retained in this Order and applied to WQBELs established herein. While this Order increases the permitted flow rate from the SBOO from 40.0 MGD to 50.0 MGD in accordance with the 10-MGD expansion of the SBIWTP, the Discharger has opened an additional 64 ports on the southern leg of the SBOO to maintain a dilution ratio greater than 94.6.

Conventional pollutants were not considered as part of the RPA. TBELs for these pollutants are included in this Order as listed in Table 2 and described in section 4.2 of this Fact Sheet.

Using the RPcalc 2.0 software tool developed by the State Water Board for conducting RPAs, the San Diego Water Board has conducted the RPA for the constituents listed in Table F-8 below. For constituents that do not display reasonable potential, this Order includes desirable maximum effluent concentrations (MECs) which were derived using effluent limitation determination procedures described below and are referred to in this Order as “performance goals.” A narrative limit statement to comply with all Ocean Plan objectives requirements is provided for those parameters not displaying reasonable potential. The Discharger is required to monitor for these constituents as stated in the Monitoring and Reporting Program (MRP, Attachment E) of this Order in order to gather data for use in RPAs for future permit reissuances.

Effluent data provided in the Discharger’s monitoring reports for the Facility from August 2014 through November 2020 were used in the RPA. A dilution ratio of 94.6:1 was considered in this evaluation.

A summary of the RPA results is provided in Table F-8:

**Table F-8. RPA Results Summary**

| Parameter [1] | Units | N [2] | MEC [3][4] | Most Stringent Criteria | Background | RPA Endpoint [5] |
|---|---|---|---|---|---|---|
| Arsenic, Total Recoverable | µg/L | 322 | 26 | 8 [6] | 3 [7] | 2 |
| Cadmium, Total Recoverable | µg/L | 322 | 14 | 1 [6] | 0 | 2 |
| Chromium (VI), Total Recoverable | µg/L | 262 | 1.2 | 2 [6] | 0 | 2 |
| Copper, Total Recoverable | µg/L | 322 | 200 | 3 [6] | 2 [7] | 1 |
| Lead, Total Recoverable | µg/L | 322 | 21 | 2 [6] | 0 | 2 |
| Mercury, Total Recoverable | µg/L | 578 | 5.78 | 0.04 [6] | 0.0005 [7] | 1 |
| Nickel, Total Recoverable | µg/L | 322 | 78 | 5 [6] | 0 | 2 |
| Selenium, Total Recoverable | µg/L | 322 | 42 | 15 [6] | 0 | 2 |
| Silver, Total Recoverable | µg/L | 322 | 17 | 0.7 [6] | 0.16 [7] | 2 |
| Zinc, Total Recoverable | µg/L | 321 | 550 | 20 [6] | 8 [7] | 2 |
| Cyanide, Total | µg/L | 322 | 7 | 1 [6] | 0 | 2 |
| Total Residual Chlorine | µg/L | 2344 | <0.0001 | 2 [6] | 0 | 2 |
| Ammonia (expressed as nitrogen) | µg/L | 84 | 53,200 | 600 [6] | 0 | 2 |
| Acute Toxicity | TUa | 257 | 1.87 | 0.3 [8] | 0 | 2 |
| Chronic Toxicity | TUc | 273 | 200 | 1 [8] | 0 | 1 |
| Phenolic Compounds | µg/L | 79 | 14 | 30 [6] | 0 | 2 |
| Chlorinated Phenolics | µg/L | 79 | 1.1 | 1 [6] | 0 | 2 |
| Endosulfan | µg/L | 79 | <0.01 | 0.009 [6] | 0 | 2 |
| Endrin | µg/L | 79 | <0.002 | 0.002 [6] | 0 | 2 |
| HCH | µg/L | 79 | <0.01 | 0.004 [6] | 0 | 2 |
| Radioactivity | pCi/L | -- | -- | [9] | 0 | -- |
| Acrolein | µg/L | 23 | <2.6 | 220 [10] | 0 | 2 |
| Antimony | µg/L | 23 | <1.3 | 1,200 [10] | 0 | 2 |
| Bis(2-chloroethoxyl) Methane | µg/L | 23 | <0.027 | 4.4 [10] | 0 | 2 |
| Bis(2-chloroisopropyl) Ether | µg/L | 23 | <0.38 | 1,200 [10] | 0 | 2 |
| Chlorobenzene | µg/L | 23 | <0.31 | 570 [10] | 0 | 2 |
| Chromium (III), Total Recoverable | µg/L | 90 | <1.2 | 190,000 [10] | 0 | 2 |
| Di-n-butyl Phthalate | µg/L | 23 | 2.5 | 3,500 [10] | 0 | 2 |
| Dichlorobenzenes | µg/L | 23 | <0.29 | 5,100 [10] | 0 | 2 |

| Parameter [1] | Units | N [2] | MEC [3][4] | Most Stringent Criteria | Background | RPA Endpoint [5] |
|---|---|---|---|---|---|---|
| Diethyl Phthalate | µg/L | 23 | <0.57 | 33,000 [10] | 0 | 2 |
| Dimethyl Phthalate | µg/L | 23 | <0.22 | 820,000 [10] | 0 | 2 |
| 4,6-dinitro-2-methylphenol | µg/L | 21 | <1.0 | 220 [10] | 0 | 2 |
| 2,4-dinitrophenol | µg/L | 23 | <1.0 | 4.0 [10] | 0 | 2 |
| Ethylbenzene | µg/L | 23 | <0.38 | 4,100 [10] | 0 | 2 |
| Fluoranthene | µg/L | 23 | <0.0084 | 15 [10] | 0 | 2 |
| Hexachlorocyclopentadiene | µg/L | 23 | <1.0 | 58 [10] | 0 | 2 |
| Nitrobenzene | µg/L | 23 | <0.23 | 4.9 [10] | 0 | 2 |
| Thallium, Total Recoverable | µg/L | 95 | <2.2 | 2 [10] | 0 | 2 |
| Toluene | µg/L | 23 | <0.48 | 85,000 [10] | 0 | 2 |
| Tributyltin | µg/L | 20 | <0.004 | 0.0014 [10] | 0 | 2 |
| 1,1,1-trichloroethane | µg/L | 23 | <0.23 | 540,000 [10] | 0 | 2 |
| Acrylonitrile | µg/L | 23 | <1.5 | 0.10 [10] | 0 | 2 |
| Aldrin | µg/L | 23 | <0.002 | 0.000022 [10] | 0 | 2 |
| Benzene | µg/L | 23 | <0.47 | 5.9 [10] | 0 | 2 |
| Benzidine | µg/L | 21 | <1.0 | 0.000069 [10] | 0 | 3 |
| Beryllium | µg/L | 90 | <0.40 | 0.033 [10] | 0 | 2 |
| Bis(2-chloroethyl) Ether | µg/L | 23 | <0.42 | 0.045 [10] | 0 | 2 |
| Bis(2-ethylhexyl) Phthalate | µg/L | 23 | 10 | 3.5 [10] | 0 | 2 |
| Carbon Tetrachloride | µg/L | 23 | <0.38 | 0.90 [10] | 0 | 2 |
| Chlordane | µg/L | 21 | <0.014 | 0.000023 [10] | 0 | 3 |
| Chlorodibromomethane | µg/L | 21 | <0.36 | 8.6 [10] | 0 | 2 |
| Chloroform | µg/L | 23 | 3.0 | 130 [10] | 0 | 2 |
| DDT | µg/L | 21 | <0.0070 | 0.00017 [10] | 0 | 3 |
| 1,4-dichlorobenzene | µg/L | 23 | <0.26 | 18 [10] | 0 | 2 |
| 3,3-dichlorobenzidine | µg/L | 23 | <0.59 | 0.0081 [10] | 0 | 2 |
| 1,2-dichloroethane | µg/L | 23 | <0.25 | 28 [10] | 0 | 2 |
| 1,1-dichloroethylene | µg/L | 23 | <0.07 | 0.9 [10] | 0 | 2 |
| Dichlorobromomethane | µg/L | 23 | <0.31 | 6.2 [10] | 0 | 2 |
| Dichloromethane | µg/L | 23 | <0.43 | 450 [10] | 0 | 2 |
| 1,3-dichloropropene | µg/L | 23 | <0.32 | 8.9 [10] | 0 | 2 |
| Dieldrin | µg/L | 27 | <0.0020 | 0.00004 [10] | 0 | 2 |
| 2,4-dinitrotoluene | µg/L | 23 | <0.45 | 2.6 [10] | 0 | 2 |
| 1,2-diphenylhydrazine | µg/L | 23 | <1.0 | 0.16 [10] | 0 | 2 |
| Halomethanes | µg/L | 23 | <0.67 | 130 [10] | 0 | 2 |
| Heptachlor | µg/L | 26 | <0.0020 | 0.00005 [10] | 0 | 2 |

| Parameter [1] | Units | N [2] | MEC [3][4] | Most Stringent Criteria | Background | RPA Endpoint [5] |
|---|---|---|---|---|---|---|
| Heptachlor Epoxide | µg/L | 23 | <0.0030 | 0.00002 [10] | 0 | 3 |
| Hexachlorobenzene | µg/L | 21 | <0.35 | 0.00021 [10] | 0 | 3 |
| Hexachlorobutadiene | µg/L | 23 | <0.56 | 14 [10] | 0 | 2 |
| Hexachloroethane | µg/L | 23 | <0.25 | 2.5 [10] | 0 | 2 |
| Isophorone | µg/L | 23 | <0.64 | 730 [10] | 0 | 2 |
| N-nitrosodimethylamine | µg/L | 23 | <1.0 | 7.3 [10] | 0 | 2 |
| N-nitrosodi-N-propylamine | µg/L | 23 | <0.58 | 0.38 [10] | 0 | 2 |
| N-nitrosodiphenylamine | µg/L | 23 | <0.12 | 2.5 [10] | 0 | 2 |
| PAHs | µg/L | 23 | <0.065 | 0.0088 [10] | 0 | 2 |
| PCBs | µg/L | 21 | <0.40 | 0.000019 [10] | 0 | 3 |
| TCDD equivalents | µg/L | 21 | 9.10E-07 | 0.0000000039 [10] | 0 | 1 |
| 1,1,2,2-tetrachloroethane | µg/L | 23 | <0.42 | 2.3 [10] | 0 | 2 |
| Tetrachloroethylene | µg/L | 23 | <0.49 | 2.0 [10] | 0 | 2 |
| Toxaphene | µg/L | 21 | <0.50 | 0.00021 [10] | 0 | 3 |
| Trichloroethylene | µg/L | 23 | <0.31 | 27 [10] | 0 | 2 |
| 1,1,2-trichloroethane | µg/L | 23 | <0.34 | 9.4 [10] | 0 | 2 |
| 2,4,6-trichlorophenol | µg/L | 23 | <1.0 | 0.29 [10] | 0 | 2 |
| Vinyl Chloride | µg/L | 23 | <0.47 | 36 [10] | 0 | 2 |

Notes for Table F-8

[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 Method Detection Limit (MDL) is summarized in the table.

[4] Note that the reported MEC does not account for dilution. The RPA does account for dilution; therefore, it is possible for a parameter with an MEC in exceedance of the most stringent criteria not to present a RP (i.e. Endpoint 2).

[5] End Point 1 – RP determined, limit required, monitoring required.
End Point 2 – Discharger determined not to have RP, monitoring may be established.
End Point 3 – RPA was inconclusive, carry over previous limitations if applicable, and establish monitoring.

[6] Based on the 6-Month Median in the Table 3 of the Ocean Plan.

[7] Background concentrations contained in Table 5 of the Ocean Plan.

[8] Based on the Daily Maximum in Table 3 of the Ocean Plan.

[9] Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR. Levels of radioactivity that exceed the applicable criteria are not expected in the discharge.

[10] Based on 30-Day Average in Table 3 of the Ocean Plan.

Endpoint 1

The RPA for copper, mercury, chronic toxicity, and TCDD equivalents resulted in Endpoint 1 (reasonable potential). Effluent limitations for mercury and TCDD equivalents from Order No. R9-2014-0009 have been retained, while new effluent limitations for copper and toxicity have been established in this Order. The effluent limitations for the effluent limitations are based on the initial dilution of 94.6:1 as discussed below.

Endpoint 2

Except as discussed below, parameters for which Endpoint 2 (no reasonable potential) was concluded were not assigned effluent limitations in this Order. This Order instead assigns performance goals for these parameters.

The RPA for total residual chlorine resulted in Endpoint 2 (no reasonable potential); however, this Order establishes effluent limitations for total residual chlorine based on Step 13 of the Ocean Plan's RPA procedures. Step 13 authorizes an RPA based on best professional judgement upon a review of all available information to determine if a water-quality based effluent limitation is required to protect beneficial uses. The Facility receives influent of an unknown nature and, while the Discharger does not currently chlorinate nor plans to chlorinate, the infrastructure exists at the Facility to chlorinate its effluent. As explained in footnote 11 of Table E-3, monitoring for total residual chlorine is only required when a treatment unit uses chlorine for disinfection. Thus, in the San Diego Water Board's best professional judgment, an effluent limitation for total residual chlorine is reasonably required when chlorine is used for treatment to protect beneficial uses based on the unknown nature of the influent entering the Facility, Facility operations, and potential toxic impact of the discharge.

Endpoint 3

For parameters for which Endpoint 3 (inconclusive) was concluded, effluent limitations or performance goals were retained from Order No. R9-2014-0009. Effluent limitations were retained for benzidine, chlordane, DDT, heptachlor expoxide, hexachlorobenzene, PCBs, and toxaphene.

Bacterial Indicators

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

- The discharge point (Discharge Point No. 001) is located at the terminus of the SBOO, located ~~23~~18,600 feet offshore at a depth of 93 feet.
- The Dm is 94.6.
- The San Diego Water Board is not aware of any shellfish harvesting within the zone of initial dilution (ZID) of the SBOO.

- There are no kelp beds within the ZID of the SBOO.

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

USIBWC and the San Diego Water Board jointly conducted an additional RPA in advance of USIBWC's 10-MGD expansion to 35 MGD. At the time of the RPA, no primary effluent water quality data were available. Therefore, the San Diego Water Board adopted a conservative weighted average approach, which assumed a blended effluent water quality equal to:

$$\frac{(10\ x\ Influent\ WQ) + (25\ x\ Effluent\ WQ)}{35}$$

Where "Influent WQ" is equal to influent concentration for each analyte and "Effluent WQ" is equal to effluent concentration for each analyte.

This estimated effluent concentration approach is conservative because the proposed 10 MGD expansion resulted in a blend of advanced primary effluent and secondary effluent. Because effluent from the advanced primary treatment portion of the process will be improved compared to plant influent, using the observed influent concentrations as a proxy for advanced primary effluent is highly conservative.

The RPA was conducted using the RPcalc, Version 2.22 provided by the State Water Resources Control Board. These estimated effluent concentrations utilize influent and effluent data extracted from the CIWQS Electronic Self-Monitoring Reports (eSMRs). Data from 2015-2024 were used in the analysis, adding additional data to those used to conduct the RPA outlined in Table F-10.

The RPA was performed for constituents with effluent limits and performance goals. Each constituent was evaluated based on the applicable performance goal(s), including:

- Six-Month Median
- Monthly Average
- Maximum Daily
- Instantaneous Maximum

The results of the analysis for all 83 analytes are included in Table F-10a, below. A score of "2" was calculated for nearly all analyte effluent limits and performance goals. Analytes with a score of "2" do not require effluent limitations, but may require monitoring as appropriate. Any analyte which corresponds to an existing WQBEL in this Order was not re-analyzed as part of this RPA.

The exceptions to this result include a score of "3" (inconclusive results) for benzidine, chlordane, hexachlorobenzene, total PCBs, and toxaphene. These analytes currently require performance monitoring and evaluation. Examination of the raw analytical results shows all results were non-detect but with varying reporting limits.

Only one analyte received a score of "1" for this analysis. Bis(2-Chloroethyl) ether exhibited one influent result that was detected at 15 ug/L. The paired effluent result was non-detect for that day. Due to the weighted effluent concentration method for this analysis, the influent result is causing the score of "1." This is likely the result of the conservative approach to model advanced primary effluent quality with influent quality as a proxy. Since influent quality does not reflect any degree of the treatment taking place at the SBIWTP, the actual concentration of bis(2-chloroethyl) ether in blended effluent would be lower than the influent concentration. Accordingly, the San Diego Water Board did not elevate any performance goals to effluent limitations.

Table F-10a: July 2025 RPA Endpoint Results

| Constituent | Six-Month Median | Monthly Average | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|---|
| Arsenic, Total Recoverable | 2 | N/A | 2 | 2 |
| Cadmium, Total Recoverable | 2 | N/A | 2 | 2 |
| Chromium (VI), Total Recoverable | 2 | N/A | 2 | 2 |
| Copper, Total Recoverable* | N/A | N/A | N/A | N/A |
| Lead, Total Recoverable | 2 | N/A | 2 | 2 |
| Mercury, Total Recoverable* | N/A | N/A | N/A | N/A |
| Nickel, Total Recoverable | 2 | N/A | 2 | 2 |
| Selenium, Total Recoverable | 2 | N/A | 2 | 2 |
| Silver, Total Recoverable | 2 | N/A | 2 | 2 |
| Zinc, Total Recoverable | 2 | N/A | 2 | 2 |
| Cyanide, Total | 2 | N/A | 2 | 2 |
| Total Residual Chlorine | 2 | N/A | 2 | 2 |
| Ammonia, Total (as N) | 2 | N/A | 2 | 2 |
| Acute Toxicity | N/A | N/A | N/A | N/A |
| Chronic Toxicity* | N/A | N/A | N/A | N/A |
| Phenols, Non-chlorinated | 2 | N/A | 2 | 2 |

| Constituent | Six-Month Median | Monthly Average | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|---|
| Phenols, Chlorinated | 2 | N/A | 2 | 2 |
| Endosulfan | 2 | N/A | 2 | 2 |
| Endrin | 2 | N/A | 2 | 2 |
| HCH | 2 | N/A | 2 | 2 |
| Radioactivity | N/A | N/A | N/A | N/A |
| Acrolein | N/A | 2 | N/A | N/A |
| Antimony | N/A | 2 | N/A | N/A |
| Bis(2-chloroethoxyl) Methane | N/A | 2 | N/A | N/A |
| Bis(2-chloroisopropyl) Ether | N/A | 2 | N/A | N/A |
| Chlorobenzene | N/A | 2 | N/A | N/A |
| Chromium (III), Total Recoverable | N/A | 2 | N/A | N/A |
| Di-n-butyl Phthalate | N/A | 2 | N/A | N/A |
| Dichlorobenzenes | N/A | 2 | N/A | N/A |
| Diethyl Phthalate | N/A | 2 | N/A | N/A |
| Dimethyl Phthalate | N/A | 2 | N/A | N/A |
| 4,6-dinitro-2-methylphenol | N/A | 2 | N/A | N/A |
| 2,4-dinitrophenol | N/A | 2 | N/A | N/A |
| Ethylbenzene | N/A | 2 | N/A | N/A |
| Fluoranthene | N/A | 2 | N/A | N/A |
| Hexachlorocyclopentadiene | N/A | 2 | N/A | N/A |
| Nitrobenzene | N/A | 2 | N/A | N/A |
| Thallium, Total Recoverable | N/A | 2 | N/A | N/A |
| Toluene | N/A | 2 | N/A | N/A |
| Tributyltin | N/A | 2 | N/A | N/A |
| 1,1,1-trichloroethane | N/A | 2 | N/A | N/A |
| Acrylonitrile | N/A | 2 | N/A | N/A |
| Aldrin | N/A | 2 | N/A | N/A |
| Benzene | N/A | 2 | N/A | N/A |

| Constituent | Six-Month Median | Monthly Average | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|---|
| Benzidine | N/A | 3 | N/A | N/A |
| Beryllium | N/A | 2 | N/A | N/A |
| Bis (2-Chloroethyl) Ether | N/A | 1 | N/A | N/A |
| Bis(2-ethylhexyl) Phthalate | N/A | 2 | N/A | N/A |
| Carbon Tetrachloride | N/A | 2 | N/A | N/A |
| Chlordane | N/A | 3 | N/A | N/A |
| Chlorodibromomethane | N/A | 2 | N/A | N/A |
| Chloroform | N/A | 2 | N/A | N/A |
| DDT | N/A | 2 | N/A | N/A |
| 1,4-dichlorobenzene | N/A | 2 | N/A | N/A |
| 3,3-dichlorobenzidine | N/A | 2 | N/A | N/A |
| 1,2-dichloroethane | N/A | 2 | N/A | N/A |
| 1,1-dichloroethylene | N/A | 2 | N/A | N/A |
| Dichlorobromomethane | N/A | 2 | N/A | N/A |
| Dichloromethane | N/A | 2 | N/A | N/A |
| 1,3-dichloropropene | N/A | 2 | N/A | N/A |
| Dieldrin | N/A | 2 | N/A | N/A |
| 2,4-dinitrotoluene | N/A | 2 | N/A | N/A |
| 1,2-diphenylhydrazine | N/A | 2 | N/A | N/A |
| Halomethanes | N/A | 2 | N/A | N/A |
| Heptachlor | N/A | 2 | N/A | N/A |
| Heptachlor Epoxide | N/A | 2 | N/A | N/A |
| Hexachlorobenzene | N/A | 3 | N/A | N/A |
| Hexachlorobutadiene | N/A | 2 | N/A | N/A |

| Constituent | Six-Month Median | Monthly Average | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|---|
| Hexachloroethane | N/A | 2 | N/A | N/A |
| Isophorone | N/A | 2 | N/A | N/A |
| N-nitrosodimethylamine | N/A | 2 | N/A | N/A |
| N-nitrosodi-N-propylamine | N/A | 2 | N/A | N/A |
| N-nitrosodiphenylamine | N/A | 2 | N/A | N/A |
| PAHs | N/A | 2 | N/A | N/A |
| PCBs | N/A | 3 | N/A | N/A |
| TCDD Equivalents* | N/A | N/A | N/A | N/A |
| 1,1,2,2-tetrachloroethane | N/A | 2 | N/A | N/A |
| Tetrachloroethene | N/A | 2 | N/A | N/A |
| Toxaphene | N/A | 3 | N/A | N/A |
| Trichloroethylene | N/A | 2 | N/A | N/A |
| 1,1,2-trichloroethane | N/A | 2 | N/A | N/A |
| 2,4,6-trichlorophenol | N/A | 2 | N/A | N/A |
| Vinyl Chloride | N/A | 2 | N/A | N/A |

*Analyte received an RPA score of "1" in a previous RPA, and therefore not reanalyzed.

### 4.3.4. WQBEL 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:

$C_e = C_o + D_m (C_o - C_s)$ where
$C_e$ = the effluent limitation (µg/L)
$C_o$ = the water quality objective to be met at the completion of initial dilution (µg/L)
$C_s$ = background seawater concentration
$D_m$ = minimum probable initial dilution expressed as parts seawater per part wastewater

4.3.4.2. As discussed in section 4.3.3 above, the initial dilution of 94.6:1 was retained from Order No. R9-2014-0009.

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 "$C_s$"). In accordance with Table 3 implementing procedures, $C_s$ equals zero for all pollutants not established in Table 5. The background concentrations provided in Table 5 of the Ocean Plan are summarized in Table F-9:

**Table F-9. Pollutants Having Background Concentrations**

| Pollutant | Background Seawater Concentration |
|---|---|
| Arsenic, Total Recoverable | 3 µg/L |
| Copper, Total Recoverable | 2 µg/L |
| Mercury, Total Recoverable | 0.0005 µg/L |
| Silver, Total Recoverable | 0.16 µg/L |
| Zinc, Total Recoverable | 8 µg/L |

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

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

**Table F-10. Example Parameter Water Quality Objectives**

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

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

Total Chlorine Residual:

$C_e = 2 + 94.6 (2 – 0) = 191.2$ (6-Month Median)
$C_e = 8 + 94.6 (8 – 0) = 764.8$ (Daily Maximum)
$C_e = 60 + 94.6 (60 – 0) = 5{,}736$ (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: lbs/day = permitted flow (MGD) x pollutant concentration (mg/L) x 8.34

4.3.4.6. Based on the results of the RPA and BPJ, a summary of the WQBELs established in this Order are provided in ~~the Table F-13 below~~Table 2 Effluent Limitations at Monitoring Location E-001, in the main body of this Order.

**~~Table F-13. Summary of WQBELs at Monitoring Location E-001~~**

| ~~Parameter~~ [1][2] | ~~Unit~~ [3] | ~~Six-Month Median~~ | ~~Average Monthly~~ | ~~Maximum Daily~~ | ~~Instantaneous Maximum~~ |
|---|---|---|---|---|---|
| ~~Copper, Total Recoverable~~ | ~~µg/L~~ | ~~9.76E+01~~ | ~~--~~ | ~~9.58E+02~~ | ~~2.68E+03~~ |
| ~~Copper, Total Recoverable~~ | ~~lbs/day~~ | ~~2.03E+01~~ | ~~--~~ | ~~2.00E+02~~ | ~~5.59E+02~~ |
| ~~Mercury, Total Recoverable~~ | ~~µg/L~~ | ~~3.78E+00~~ | ~~--~~ | ~~1.52E+01~~ | ~~3.82E+01~~ |
| ~~Mercury, Total Recoverable~~ | ~~lbs/day~~ | ~~7.87E-01~~ | ~~--~~ | ~~3.18E+00~~ | ~~7.96E+00~~ |
| ~~Total Chlorine Residual~~ [4] | ~~µg/L~~ | ~~1.91E+02~~ | ~~--~~ | ~~7.65E+02~~ | ~~5.74E+03~~ |
| ~~Total Chlorine Residual~~ | ~~lbs/day~~ | ~~3.99E+01~~ | ~~--~~ | ~~1.59E+02~~ | ~~1.20E+03~~ |
| ~~Chronic Toxicity~~ [4][5] | ~~"Pass"/ "Fail"~~ | ~~--~~ | ~~--~~ | ~~"Pass"~~ | ~~--~~ |
| ~~Benzidine~~ | ~~µg/L~~ | ~~--~~ | ~~6.60E-03~~ | ~~--~~ | ~~--~~ |
| ~~Benzidine~~ | ~~lbs/day~~ | ~~--~~ | ~~1.38E-03~~ | ~~--~~ | ~~--~~ |
| ~~Chlordane~~ | ~~µg/L~~ | ~~--~~ | ~~2.20E-03~~ | ~~--~~ | ~~--~~ |
| ~~Chlordane~~ | ~~lbs/day~~ | ~~--~~ | ~~4.58E-04~~ | ~~--~~ | ~~--~~ |
| ~~DDT~~ | ~~µg/L~~ | ~~--~~ | ~~1.63E-02~~ | ~~--~~ | ~~--~~ |
| ~~DDT~~ | ~~lbs/day~~ | ~~--~~ | ~~3.39E-03~~ | ~~--~~ | ~~--~~ |
| ~~Heptachlor Epoxide~~ | ~~µg/L~~ | ~~--~~ | ~~1.91E-03~~ | ~~--~~ | ~~--~~ |
| ~~Heptachlor Epoxide~~ | ~~lbs/day~~ | ~~--~~ | ~~3.99E-04~~ | ~~--~~ | ~~--~~ |
| ~~Hexachlorobenzene~~ | ~~µg/L~~ | ~~--~~ | ~~2.01E-02~~ | ~~--~~ | ~~--~~ |
| ~~Hexachlorobenzene~~ | ~~lbs/day~~ | ~~--~~ | ~~4.19E-03~~ | ~~--~~ | ~~--~~ |
| ~~PCBs~~ | ~~µg/L~~ | ~~--~~ | ~~1.82E-03~~ | ~~--~~ | ~~--~~ |
| ~~PCBs~~ | ~~lbs/day~~ | ~~--~~ | ~~3.79E-04~~ | ~~--~~ | ~~--~~ |
| ~~TCDD equivalents~~ | ~~µg/L~~ | ~~--~~ | ~~3.73E-07~~ | ~~--~~ | ~~--~~ |
| ~~TCDD equivalents~~ | ~~lbs/day~~ | ~~--~~ | ~~7.77E-08~~ | ~~--~~ | ~~--~~ |
| ~~Toxaphene~~ | ~~µg/L~~ | ~~--~~ | ~~2.01E-02~~ | ~~--~~ | ~~--~~ |

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Toxaphene | lbs/day | -- | 4.19E-03 | -- | -- |

Notes for Table F-13

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

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

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the SBIWTP (25.0 MGD) and C is the concentration (mg/L).

[4] As specified in section 7.12 of this Order and section 3.3 of the MRP (Attachment E).

[5] A numeric WQBEL is established for chronic toxicity based on BPJ (Step 13 of the Ocean Plan RPA). The chronic toxicity performance goal is protective of both the numeric acute and chronic toxicity 2019 Ocean Plan water quality objectives. *The chronic toxicity effluent limitation will be implemented using Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995), current *USEPA guidance in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf), and USEPA Regions 8, 9, and 10, Toxicity Training Tool (January 2010).

[1]

4.3.4.7. A summary of the performance goals is provided in Table 5. Performance Goals at Monitoring Location E-001, in the main body of this order.

**Table F-14. Summary of Performance Goals at Monitoring Location E-001**

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Arsenic, Total Recoverable | µg/L | 4.81E+02 | -- | 2.78E+03 | 7.36E+03 |
| Arsenic, Total Recoverable | lbs/day | 1.00E+02 | -- | 5.79E+02 | 1.54E+03 |
| Cadmium, Total Recoverable | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Cadmium, Total Recoverable | lbs/day | 1.99E+01 | -- | 7.97E+01 | 1.99E+02 |

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Chromium VI, Total Recoverable [4] | µg/L | 1.91E+02 | -- | 7.65E+02 | 1.91E+03 |
| Chromium VI, Total Recoverable [4] | lbs/day | 3.99E+01 | -- | 1.59E+02 | 3.99E+02 |
| Lead, Total Recoverable | µg/L | 1.91E+02 | -- | 7.65E+02 | 1.91E+03 |
| Lead, Total Recoverable | lbs/day | 3.99E+01 | -- | 1.59E+02 | 3.99E+02 |
| Nickel, Total Recoverable | µg/L | 4.78E+02 | -- | 1.91E+03 | 4.78E+03 |
| Nickel, Total Recoverable | lbs/day | 9.97E+01 | -- | 3.99E+02 | 9.97E+02 |
| Selenium, Total Recoverable | µg/L | 1.43E+03 | -- | 5.74E+03 | 1.43E+04 |
| Selenium, Total Recoverable | lbs/day | 2.99E+02 | -- | 1.20E+03 | 2.99E+03 |
| Silver, Total Recoverable | µg/L | 5.18E+01 | -- | 2.53E+02 | 6.54E+02 |
| Silver, Total Recoverable | lbs/day | 1.08E+01 | -- | 5.27E+01 | 1.36E+02 |
| Cyanide, Total Recoverable [5] | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Cyanide, Total Recoverable | lbs/day | 1.99E+01 | -- | 7.97E+01 | 1.99E+02 |
| Ammonia (expressed as nitrogen) | µg/L | 5.74E+04 | -- | 2.29E+05 | 5.74E+05 |
| Ammonia (expressed as nitrogen) | lbs/day | 1.20E+04 | -- | 4.78E+04 | 1.20E+05 |
| Phenolic Compounds (non-chlorinated) | µg/L | 2.87E+03 | -- | 1.15E+04 | 2.87E+04 |
| Phenolic Compounds (non-chlorinated) | lbs/day | 5.98E+02 | -- | 2.39E+03 | 5.98E+03 |
| Chlorinated Phenolics | µg/L | 9.56E+01 | -- | 3.82E+02 | 9.56E+02 |
| Chlorinated Phenolics | lbs/day | 1.99E+01 | -- | 7.97E+01 | 1.99E+02 |
| Endosulfan | µg/L | 8.60E-01 | -- | 1.72E+00 | 2.58E+00 |
| Endosulfan | lbs/day | 1.79E-01 | -- | 3.59E-01 | 5.38E-01 |
| Endrin | µg/L | 1.91E-01 | -- | 3.82E-01 | 5.74E-01 |
| Endrin | lbs/day | 3.99E-02 | -- | 7.97E-02 | 1.20E-01 |
| HCH | µg/L | 3.82E-01 | -- | 7.65E-01 | 1.15E+00 |
| HCH | lbs/day | 7.97E-02 | -- | 1.59E-01 | 2.39E-01 |
| Radioactivity [5] | pCi/l | -- | -- | -- | -- |
| Acrolein | µg/L | -- | 2.10E+04 | -- | -- |
| Acrolein | lbs/day | -- | 4.39E+03 | -- | -- |
| Antimony | µg/L | -- | 1.15E+05 | -- | -- |
| Antimony | lbs/day | -- | 2.39E+04 | -- | -- |

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Bis(2-chloroethoxy) Methane | µg/L | -- | 4.21E+02 | -- | -- |
| Bis(2-chloroethoxy) Methane | lbs/day | -- | 8.77E+01 | -- | -- |
| Bis(2-chloroisopropyl) Ether | µg/L | -- | 1.15E+05 | -- | -- |
| Bis(2-chloroisopropyl) Ether | lbs/day | -- | 2.39E+04 | -- | -- |
| Chlorobenzene | µg/L | -- | 5.45E+04 | -- | -- |
| Chlorobenzene | lbs/day | -- | 1.14E+04 | -- | -- |
| Chromium (III) | µg/L | -- | 1.82E+07 | -- | -- |
| Chromium (III) | lbs/day | -- | 3.79E+06 | -- | -- |
| Di-n-butyl Phthalate | µg/L | -- | 3.35E+05 | -- | -- |
| Di-n-butyl Phthalate | lbs/day | -- | 6.98E+04 | -- | -- |
| Dichlorobenzenes | µg/L | -- | 4.88E+05 | -- | -- |
| Dichlorobenzenes | lbs/day | -- | 1.02E+05 | -- | -- |
| Diethyl Phthalate | µg/L | -- | 3.15E+06 | -- | -- |
| Diethyl Phthalate | lbs/day | -- | 6.58E+05 | -- | -- |
| Dimethyl Phthalate | µg/L | -- | 7.84E+07 | -- | -- |
| Dimethyl Phthalate | lbs/day | -- | 1.63E+07 | -- | -- |
| 4,6-dinitro-2-methylphenol | µg/L | -- | 2.10E+04 | -- | -- |
| 4,6-dinitro-2-methylphenol | lbs/day | -- | 4.39E+03 | -- | -- |
| 2,4-dinitrophenol | µg/L | -- | 3.82E+02 | -- | -- |
| 2,4-dinitrophenol | lbs/day | -- | 7.97E+01 | -- | -- |
| Ethylbenzene | µg/L | -- | 3.92E+05 | -- | -- |
| Ethylbenzene | lbs/day | -- | 8.17E+04 | -- | -- |
| Fluoranthene | µg/L | -- | 1.43E+03 | -- | -- |
| Fluoranthene | lbs/day | -- | 2.99E+02 | -- | -- |
| Hexachlorocyclopentadiene | µg/L | -- | 5.54E+03 | -- | -- |
| Hexachlorocyclopentadiene | lbs/day | -- | 1.16E+03 | -- | -- |
| Nitrobenzene | µg/L | -- | 4.68E+02 | -- | -- |
| Nitrobenzene | lbs/day | -- | 9.77E+01 | -- | -- |
| Toluene | µg/L | -- | 8.13E+06 | -- | -- |
| Toluene | lbs/day | -- | 1.69E+06 | -- | -- |
| Tributyltin | µg/L | -- | 1.34E-01 | -- | -- |
| Tributyltin | lbs/day | -- | 2.79E-02 | -- | -- |
| 1,1,1-trichloroethane | µg/L | -- | 5.16E+07 | -- | -- |
| 1,1,1-trichloroethane | lbs/day | -- | 1.08E+07 | -- | -- |
| Acrylonitrile | µg/L | -- | 9.56E+00 | -- | -- |
| Acrylonitrile | lbs/day | -- | 1.99E+00 | -- | -- |
| Aldrin | µg/L | -- | 2.10E-03 | -- | -- |

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| Aldrin | lbs/day | -- | 4.39E-04 | -- | -- |
| Benzene | µg/L | -- | 5.64E+02 | -- | -- |
| Benzene | lbs/day | -- | 1.18E+02 | -- | -- |
| Beryllium | µg/L | -- | 3.15E+00 | -- | -- |
| Beryllium | lbs/day | -- | 6.58E-01 | -- | -- |
| Bis(2-chloroethyl) Ether | µg/L | -- | 4.30E+00 | -- | -- |
| Bis(2-chloroethyl) Ether | lbs/day | -- | 8.97E-01 | -- | -- |
| Bis(2-ethlyhexyl) Phthalate | µg/L | -- | 3.35E+02 | -- | -- |
| Bis(2-ethlyhexyl) Phthalate | lbs/day | -- | 6.98E+01 | -- | -- |
| Carbon Tetrachloride | µg/L | -- | 8.60E+01 | -- | -- |
| Carbon Tetrachloride | lbs/day | -- | 1.79E+01 | -- | -- |
| Chloroform | µg/L | -- | 1.24E+04 | -- | -- |
| Chloroform | lbs/day | -- | 2.59E+03 | -- | -- |
| 1,4-dichlorobenzene | µg/L | -- | 1.72E+03 | -- | -- |
| 1,4-dichlorobenzene | lbs/day | -- | 3.59E+02 | -- | -- |
| 3,3'-dichlorobenzidine | µg/L | -- | 7.74E-01 | -- | -- |
| 3,3'-dichlorobenzidine | lbs/day | -- | 1.61E-01 | -- | -- |
| 1,2-dichloroethane | µg/L | -- | 2.68E+03 | -- | -- |
| 1,2-dichloroethane | lbs/day | -- | 5.58E+02 | -- | -- |
| 1,1-dichloroethylene | µg/L | -- | 8.60E+01 | -- | -- |
| 1,1-dichloroethylene | lbs/day | -- | 1.79E+01 | -- | -- |
| Dichlorobromomethane | µg/L | -- | 5.93E+02 | -- | -- |
| Dichlorobromomethane | lbs/day | -- | 1.24E+02 | -- | -- |
| Dichloromethane (Methylene Chloride) | µg/L | -- | 4.30E+04 | -- | -- |
| Dichloromethane (Methylene Chloride) | lbs/day | -- | 8.97E+03 | -- | -- |
| 1,3-dichloropropene (1,3-Dichloropropylene) | µg/L | -- | 8.51E+02 | -- | -- |
| 1,3-dichloropropene (1,3-Dichloropropylene) | lbs/day | -- | 1.77E+02 | -- | -- |
| Dieldrin | µg/L | -- | 3.82E-03 | -- | -- |
| Dieldrin | lbs/day | -- | 7.97E-04 | -- | -- |
| 2,4-dinitrotoluene | µg/L | -- | 2.49E+02 | -- | -- |
| 2,4-dinitrotoluene | lbs/day | -- | 5.18E+01 | -- | -- |
| 1,2-diphenylhydrazine | µg/L | -- | 1.53E+01 | -- | -- |
| 1,2-diphenylhydrazine | lbs/day | -- | 3.19E+00 | -- | -- |
| Halomethanes | µg/L | -- | 1.24E+04 | -- | -- |
| Halomethanes | lbs/day | -- | 2.59E+03 | -- | -- |

| Parameter [1][2] | Unit [3] | Six-Month Median | Average Monthly | Maximum Daily | Instantaneous Maximum |
|---|---|---|---|---|---|
| heptachlor | µg/L | -- | 4.78E-03 | -- | -- |
| heptachlor | lbs/day | -- | 9.97E-04 | -- | -- |
| Hexachlorobutadiene | µg/L | -- | 1.34E+03 | -- | -- |
| Hexachlorobutadiene | lbs/day | -- | 2.79E+02 | -- | -- |
| Hexachloroethane | µg/L | -- | 2.39E+02 | -- | -- |
| Hexachloroethane | lbs/day | -- | 4.98E+01 | -- | -- |
| Isophorone | µg/L | -- | 6.98E+04 | -- | -- |
| Isophorone | lbs/day | -- | 1.46E+04 | -- | -- |
| N-nitrosodimethylamine | µg/L | -- | 6.98E+04 | -- | -- |
| N-nitrosodimethylamine | lbs/day | -- | 1.46E+04 | -- | -- |
| N-nitrosodi-N-propylamine | µg/L | -- | 3.63E+01 | -- | -- |
| N-nitrosodi-N-propylamine | lbs/day | -- | 7.57E+00 | -- | -- |
| N-nitrosodiphenylamine | µg/L | -- | 2.39E+02 | -- | -- |
| N-nitrosodiphenylamine | lbs/day | -- | 4.98E+01 | -- | -- |
| PAH | µg/L | -- | 8.41E-01 | -- | -- |
| PAH | lbs/day | -- | 1.75E-01 | -- | -- |
| 1,1,2,2-tetrachloroethane | µg/L | -- | 2.20E+02 | -- | -- |
| 1,1,2,2-tetrachloroethane | lbs/day | -- | 4.58E+01 | -- | -- |
| Tetrachloroethylene (Tetrachloroethene) | µg/L | -- | 1.91E+02 | -- | -- |
| Tetrachloroethylene (Tetrachloroethene) | lbs/day | -- | 3.99E+01 | -- | -- |
| Trichloroethylene (Trichloroethene) | µg/L | -- | 2.58E+03 | -- | -- |
| Trichloroethylene (Trichloroethene) | lbs/day | -- | 5.38E+02 | -- | -- |
| 1,1,2-trichloroethane | µg/L | -- | 8.99E+02 | -- | -- |
| 1,1,2-trichloroethane | lbs/day | -- | 1.87E+02 | -- | -- |
| 2,4,6-trichlorophenol | µg/L | -- | 2.77E+01 | -- | -- |
| 2,4,6-trichlorophenol | lbs/day | -- | 5.78E+00 | -- | -- |
| Vinyl Chloride | µg/L | -- | 3.44E+03 | -- | -- |
| Vinyl Chloride | lbs/day | -- | 7.18E+02 | -- | -- |

Notes for Table F-13

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

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this

~~notation a value of 6.1 E-02 represents 6.1 x 10-2 or 0.061, 6.1E+02 represents 6.1 x 102 or 610, and 6.1E+00 represents 6.1 x 100 or 6.1.~~

~~[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the SBIWTP (25.0 MGD) and C is the concentration (mg/L).~~

~~[4] Dischargers may, at their option, apply this performance goal as a total chromium performance goal.~~

~~[5] Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the California Code of Regulations, Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.~~

### 4.3.5. Whole Effluent Toxicity (WET)

4.3.5.1. The WET testing protects receiving waters from the aggregate toxic effect of a mixture of pollutants in the effluent. Because of the nature of discharges into the wastewater treatment plant sewershed, it is possible that toxic constituents could be present in effluent from the Facility or could have synergistic or additive effects.

4.3.5.2. For this Order, chronic toxicity in the discharge is evaluated using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach at the discharge "in-stream" waste concentration (IWC), as described in section 7.15 of this Order and section 3.3 of the MRP (Attachment E). The TST statistical approach is described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be "mean discharge IWC response ≤ 0.75 × mean control response." A test that rejects this null hypothesis shall be reported as "Pass". A test that does not reject this null hypothesis shall be reported as "Fail". The chronic toxicity effluent limitation is expressed as "Pass" for each maximum daily individual result. The Discharger shall also report the "Percent Effect" as part of chronic toxicity result.

For chronic toxicity, Order No. R9-2014-0009 contained an effluent limit of 95.6 TUc and weekly monitoring. During the term of Order No. R9-2014-0009, the maximum reported effluent chronic toxicity value of 200 TUc from March 2017. Using the RPA procedures from the Ocean Plan, the effluent does have reasonable potential to cause an exceedance of the narrative water quality objective for chronic toxicity (i.e., Endpoint 1). Therefore, this Order retains an effluent limit for chronic toxicity and weekly monitoring.

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

An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration could have chronic effects but no acute effects until the chemical was at a higher concentration. Thus, chronic toxicity is a more stringent requirement than acute

toxicity. To ensure the aggregated impacts of pollutants present within the Discharger's effluent does not result in the presence of toxicity within the receiving water, this Order maintains an effluent limitation for chronic toxicity. This Order removes the effluent limitation for acute toxicity. Removal of numeric acute toxicity effluent limitation does not constitute backsliding because chronic toxicity is a more stringent requirement than acute toxicity.

4.3.5.4. Under the Ocean Plan, chronic toxicity is measured by Toxic Units Chronic (TUc) and relies on the No Observed Effect Limit. Chapter III, section F.1, of the Ocean Plan authorizes the San Diego Water Board to establish more restrictive effluent limitations as necessary to protect designated beneficial uses of ocean waters. The San Diego Water Board has conducted a site-specific analysis and finds that a more restrictive effluent limitation for chronic toxicity based on the TST statistical approach is necessary to protect designated beneficial uses of ocean waters.

The Facility treats sewage flows exceeding the capacity of Tijuana's sewage treatment and conveyance facilities and treats some transboundary flows in canyon and gullies that empty from Tijuana into the Tijuana River Estuary on the U.S. side of the international border. Tijuana is a major urban area with over 2,500 industrial plants, including manufacturing, chemical substances and petroleum, minerals, paper and printing, wood and wood products, textiles, clothing and leather, and food and beverage products.

Pursuant to IBWC Minute No. 283, the source control program in Tijuana is administered by the Government of Mexico. This Order does not prescribe water quality or discharge requirements to be attained in Mexico. Influent into the Facility may be of an unknown nature. The City of San Diego's Environmental Impact Report, conducted to determine environmental impacts of the SBOO, indicated that "the potential impact of the expected elevated toxics/heavy metal content of the treated Mexican effluent is considered potentially significant and not mitigated at this time. Total reliance on future source control in Mexico to pretreat wastewater prior to conveyance to the SBIWTP is not sufficiently guaranteed to occur such that the impact can be considered mitigated." Thus, the adequate implementation of the source control program in Tijuana cannot be relied on and sewage from the Tijuana region can still be toxic even after secondary treatment. It is possible that the SBIWTP would discharge effluent that does not meet Ocean Plan water quality standards if Tijuana's source control measures are not properly implemented.

The Discharger is also required to review the influent into the Facility, as necessary, to take into account any changes that may have occurred in the make-up or quantity of industrial users contributing loadings to the Facility via the City of Tijuana's wastewater conveyance system. The Facility may receive influent of an unknown nature as industrial contributions into the City of Tijuana's wastewater conveyance system change. The greater confidence provided by the TST approach is necessary to ensure the protection of designated beneficial uses from sudden or unknown changes to the influent and potential toxic effects of the discharge if Tijuana's source control program is not properly implemented.

Further, as noted in section 2.4 of this Fact Sheet, the Discharger reported numerous effluent exceedances during the prior permit term, including three exceedances of the chronic toxicity effluent limit and several exceedances of secondary treatment standards. Some pollutants, such as pesticides, can attach to suspended solids before being discharged to the Pacific Ocean. Further, pollutants, such as TCDD and DDT, also have method detection limits that are greater than their effluent limits. 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 chronic toxicity and TSS exceedances at the Facility raise concerns regarding compliance problems and the potential toxic impact of the discharge. Using the more precise TST approach may identify more exceedances due to the inclusion of the false negative error rate.

Several sensitive species are also known to exist in or traverse the vicinity of the SBOO. Threatened and/or endangered species with habitats in the vicinity of the SBOO include: olive ridley sea turtle (*Lepidochelys olivacea*), green turtle (*Chelonia mydas*), and the leatherback sea turtle (*Dermochelys coriacea*). (See 50 CCR § 224.10(c).) Marine fish species surrounding the SBOO also include, speckled sanddab (*Citharichthys stigmaeus*), California lizardfish (*Synodus lucioceps*), hornyhead turbot (*Pleuronichthys verticalis*), and California halibut (*Paralichthys californicus*). (Final Supplemental Environmental Impact Statement, Clean Water Act Compliance at the South Bay International Wastewater Treatment Plant (2005), p. 3-29.) The TST approach provides a precise statistical approach that is necessary to protect these sensitive species, the benthic communities upon which they may feed, and other designated beneficial uses.

The Facility discharges to the South Bay Ocean Outfall, which is jointly owned and operated by the City of San Diego. To ensure consistency and provide comparable data, all discharges to the same outfall should evaluate chronic toxicity using the same statistical approach. The City of San Diego is required, under separate waste discharge requirements, to evaluate chronic toxicity using the TST statistical approach. Thus, this Order also requires the Discharger to evaluate chronic toxicity using the TST statistical approach.

Further, evaluating chronic toxicity using the TST approach more precisely identifies toxicity in the effluent to protect the designated beneficial uses of ocean waters from potential toxic effects from the 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 the West Coast marine methods and test species required under this Order. See Table 1 (method types 1 through 5) on page 1103 in Diamond J., Denton D., Roberts J., Zheng L. 2013. *Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples*. Environ Toxicol Chem 32:1101-1108. This comparison shows that while the TST and NOEC statistical approaches perform similarly most of the time, the TST performs better in identifying toxic and nontoxic samples, a desirable characteristic for chronic toxicity testing conducted under this Order. This examination also signals that the test methods' false positive rate (β no higher than 0.05 at a mean effect of 10%) and false negative rate (α no

higher than 0.05 (0.25 for topsmelt) at a mean effect of 25%) are indeed low. This highlights that using the TST in this Order in conjunction with other Ocean Plan requirements (West Coast WET method/test species for monitoring and limiting chronic toxicity, the IWC representing the critical condition for water quality protection, the initial dilution procedure, and a single test for compliance) provides increased assurance that statistical error rates are more directly addressed and accounted for in decisions regarding chronic toxicity in the discharge.

Additionally, Fox et al. (2019)[1] 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.

Using the TST approach, the San Diego Water Board will have more confidence when making reasonable potential and permit compliance 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 other facilities in the San Diego Region, as well as other coastal regions, that also implement the TST approach for analyzing chronic toxicity data from ocean outfall discharges. As a result, and in accordance with Chapter III, section F.1, of the Ocean Plan, the San Diego Water Board is exercising its discretion to use the TST statistical approach for this discharge as necessary for the protection of beneficial uses of ocean waters.

In January 2010, USEPA published a guidance document entitled; *USEPA Regions 8, 9 and 10 Toxicity Training Tool*, which among other things discusses permit limitation expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR section 122.45(d) require that all permit limits be expressed, unless impracticable, as an AWEL and AMEL for POTWs. Following section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL and AMEL are not appropriate for WET. In lieu of an AWEL and AMEL for POTWs, USEPA recommends establishing a maximum daily effluent limitation (MDEL) for toxic pollutants and pollutants in water quality permitting, including WET. This is appropriate for two reasons. The basis for the average weekly and average monthly requirements for POTWs derives from secondary treatment regulations and is not related to the requirement to ensure achievement of water quality standard. Moreover, an average weekly and monthly requirement comprising up to seven and 31 daily samples, respectively, could average out daily peak toxic concentrations for WET and, therefore, the discharge's potential for causing acute and chronic effects would be missed. It is impracticable to use an AWEL and AMEL, because short-term spikes of toxicity levels that would be permissible under the 7-day and 31-day average scheme, respectively, would not be adequately protective of all beneficial

[1] 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.

uses. The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day.

Later in June 2010, USEPA published another guidance document titled, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to USEPA's WET test methods. Section 9.4.1.2 of USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995) and the current USEPA Guidance in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), recognizes that, "the statistical methods in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine USEPA WET test methods.

The USEPA's WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. USEPA's WET methods do not require achievement of specified effluent or ambient concentration-response patterns prior to determining that toxicity is present. See Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed. Reg. 69952, 69963, Nov. 19, 2002.

Nevertheless, USEPA's acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed—as a component of test review following statistical analysis—to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2). In 2000, USEPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (NOEC), percent waste giving 50 percent survival of test organisms (lethal concentration 50, LC 50), effects concentration at 25 percent (EC25) were calculated appropriately (EPA 821-B-00-004).

USEPA designed its 2000 guidance as a standardized step-by step review process that investigates the causes for ten commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC 50, and EC25, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly

collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by USEPA's 2000 guidance decreased discrepancies in data interpretation for NOEC, LC 50, and EC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA's TST statistical approach ("Pass"/"Fail") for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of USEPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria (TAC) and other test review procedures—including those related to quality assurance for effluent and receiving water toxicity tests, reference toxicity tests, and control performance (mean, standard deviation, and coefficient of variation)—described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single-concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The San Diego Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t- test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

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

## 4.4. Final Effluent Limitations

### 4.4.1. Satisfaction of Anti-Backsliding Requirements

NPDES permits must conform with Anti-backsliding requirements discussed in section 3.3.5 of this Fact Sheet. These Anti-backsliding provisions require effluent limitations

in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. This permit complies with all applicable federal and State Anti-backsliding regulations.

Effluent limitations for zinc, acute toxicity, tributyltin, and chlorodibromomethane have been removed based on the results of an RPA performed as specified in the Ocean Plan. Pursuant to State Water Board Order WQO-2003-0012, the elimination of a WQBEL when there is no reasonable potential is not backsliding. Alternatively, elimination of the WQBELs is based on new information and thus falls within the exception to the anti-backsliding in section 402(o)(2)(B)(i) of the Clean Water Act and 40 CFR 122.44(l)(2)(i)(B)(1).

~~The instantaneous maximum mass-based effluent limitation for oil and grease was recalculated to be 15,638 lbs/day based on a flow rate of 25 MGD and is less stringent than the 15,012 lbs/day limitation in Order No. R9-2014-0009 which was mistakenly calculated based on a flow rate of 24 MGD. The San Diego Water Board has determined that a less stringent effluent limitation is appropriate under the exception described in section 1342(o)(2)(B)(ii) of the CWA and 40 CFR 122.44(l)(2) because the limitation in Order No. R9-2014-0009 is based on a technical mistake.~~

In May 2025, USIBWC and USEPA announced an interim 10-MGD expansion of the SBIWTP treatment capacity from 25 MGD to 35 MGD, as a part of a larger project to expand the SBIWTP to 50 MGD of full secondary treatment by December 2027. In September 2025, USIBWC began to treat greater than 25 MGD of influent wastewater using advanced primary treatment followed by 25 MGD of secondary treatment using existing activated sludge processes. USIBWC blends up to 10 MGD of advanced primary effluent with 25 MGD of secondary effluent prior to discharge to the Pacific Ocean via the SBLO and SBOO.

Pursuant to 40 CFR section 122.44(l)(2)(i)(A), the San Diego Water Board finds that material and substantial alterations or additions to the Facility, including the addition of advanced primary treatment and the opening of additional diffusers on the SBOO to maintain the permitted dilution factor, occurred after NPDES permit issuance and justify an amendment to apply less stringent concentration-based technology-based effluent limitations (TBELs) for $CBOD_5$, TSS, settleable solids, and turbidity. These actions are necessary to increase treatment capacity at the SBIWTP to 35 MGD, as an interim step in USIBWC's overall expansion to 50 MGD. The treatment of up to 10 MGD of additional flow at the SBIWTP will result in improved water quality in the lower Tijuana River, Tijuana River Estuary, and near shore coastal waters. Absent the treatment at the SBIWTP, these flows would remain untreated in the River due to insufficient capacity in Tijuana's municipal wastewater conveyance and treatment system.

### 4.4.2. Satisfaction of Antidegradation Policies

The WDRs for the Discharger must conform with antidegradation requirements discussed in section 3.3.4 of this Fact Sheet. The antidegradation policies require that beneficial uses and the water quality necessary to maintain those beneficial uses in the receiving waters of the discharge shall be maintained and protected, and, if

existing water quality is better than the quality required to maintain beneficial uses, the existing water quality shall be maintained and protected unless allowing a lowering of water quality is necessary to accommodate important economic and social development or consistent with maximum benefit to the people of California. When a significant lowering of water quality is allowed by the San Diego Water Board, an antidegradation analysis is required in accordance with the State Water Board's Administrative Procedures Update (July 2, 1990), *Antidegradation Policy Implementation for NPDES Permitting*.

Effluent limitations for zinc, acute toxicity, tributyltin, and chlorodibromomethane have been removed based on the results of an RPA performed as specified in the Ocean Plan. The removal of these limitations is not expected to impact the quality of effluent, and not anticipated to result in additional loading to the receiving water. Further, performance goals have been established for zinc, tributyltin, and chlorodibromomethane to trigger re-evaluation for the need of effluent limitations if the quality of the effluent degrades. Additionally, an effluent limitation for chronic toxicity has been established and is anticipated to be protective of acute toxicity.

Baseline receiving water quality in the Pacific Ocean is severely impaired by transboundary flows comprised of untreated and partially treated domestic and industrial wastewater from Tijuana. Due to insufficient capacity in Tijuana's wastewater collection and treatment infrastructure, untreated and partially treated wastewater is regularly discharged to the Pacific Ocean through the Tijuana River, and at Punta Bandera. Punta Bandera is located approximately 5 miles south of the international border.

According to the 2020-2022 California Integrated Report, the lower Tijuana River, Tijuana River Estuary, and Pacific Ocean Shoreline in the Tijuana Hydrologic Unit are listed as impaired on the Clean Water Act Section 303(d) list of impaired water bodies for the following pollutants: indicator bacteria, ammonia, ammonia (unionized), ammonia as nitrogen, benthic community effects, bifenthrin, cadmium, chlorpyrifos, color, cypermethrin, diazinon, dichlorvos, eutrophic, low dissolved oxygen, malathion, nitrogen, dissolved oxygen, permethrin, pesticides, phosphorus, pyrethroids, sedimentation/siltation, selenium, solids, surfactants (MBAS), synthetic organics, total nitrogen as N, toxicity, trace elements, trash, turbidity, lead, nickel, and thallium.

The link between transboundary flows and degraded water quality in the lower Tijuana River, Tijuana River Estuary, and near-shore coastal waters is supported by multiple monitoring efforts and well documented by Scripps Institution of Oceanography academic studies. Monitoring for fecal indicator bacteria, as part of the Tijuana River Valley Monitoring Program, has confirmed that there is a significant amount of untreated wastewater present in the lower Tijuana River, which flows into the Pacific Ocean. Because tests by the San Diego County Department of Environmental Health and Quality have found high levels of fecal indicator bacteria, the County's southern beaches have been closed for long periods since December 2021. As of December 2025, beaches south of the Imperial Beach Pier have been closed for four consecutive years due to the risk to public health and life. The presence of untreated and partially

treated wastewater in the Tijuana River, Tijuana River Estuary, and near-shore coastal waters also results in elevated levels of hydrogen sulfide in the neighboring communities of Imperial Beach, Nestor, and San Ysidro. Socioeconomically disadvantaged communities bear the brunt of this pollution, both in terms of lost recreational access, degraded air quality and public health, and depressed economic activity.

In December 2024 the San Diego Water Board adopted Resolution No. R9-2024-0155 approving the Lower Tijuana River Indicator Bacteria and Trash Advance Restoration Plan (Lower Tijuana River ARP). The Lower Tijuana River ARP calls for the implementation of all projects in the June 2023 USEPA-USIBWC Joint Record of Decision to address water quality impacts from transboundary flows. The interim 10 MGD expansion is part of a larger project to expand the SBIWTP to 50 MGD of full secondary treatment by December 2027. In September 2025, USIBWC began treating up to 35 MGD of wastewater from Tijuana with the goal of eliminating or at least reducing dry weather transboundary wastewater flows from the Tijuana River. Due to limited secondary treatment capacity at the SBIWTP, USIBWC treats up to 35 MGD to advanced primary standards, with 25 MGD proceeding to secondary treatment. Flows in excess of 25 MGD only undergo advanced primary treatment, and the two types of effluent are blended prior to entering the SBOO, which discharges approximately 3.5 miles offshore.

On August 27, 2025, the San Diego Water Board adopted Cease and Desist Order No. R9-2025-0139 (CDO R9-2025-0139), which found that the SBIWTP 10 MGD expansion threatened to violate USIBWC's NPDES permit. Further, CDO R9-2025-0139 established interim effluent limitations for USIBWC's 35 MGD of blended advanced primary and secondary-treated effluent. CDO R9-2025-0139 is applicable through June 30, 2026, at which point USIBWC is required to comply with the permitted effluent limitations in this 2026 amended NPDES permit.

Order No. R9-2026-0005 amends the effluent limitations as follows to account for the higher flow rate and blended effluent:

1. Higher technology-based effluent limitations for $CBOD_5$, TSS, settleable solids, and turbidity;
2. Reduced minimum percent removal of $CBOD_5$ and TSS; and
3. Higher mass emission rates for oil and grease and for parameters with effluent limitations that have assigned water quality objectives in the Ocean Plan— total residual chlorine, total recoverable copper, total recoverable mercury, benzidine, chlordane, DDT, heptachlor epoxide, hexachlorobenzene, PCBs, TCDD equivalents, and toxaphene.

Order No. R9-2026-0005 does not modify concentration-based WQBELs, and all corresponding WQOs in the California Ocean Plan must be met.

USIBWC's goal is to increase treatment of influent flows up to 35 MGD to improve overall ambient water quality in the lower Tijuana River, Tijuana River Estuary, and near shore coastal waters. Although the aforementioned effluent limits have been amended, the additional 10 MGD of wastewater would otherwise be discharged to the Pacific Ocean via the Tijuana River Valley and Estuary without treatment due to insufficient capacity in the City of Tijuana's municipal wastewater conveyance and treatment system.

According to USIBWC's monthly self-monitoring reports, the average flow discharged from the SBIWTP in September and October 2025 was 29.22 MGD and 29.34 MGD, respectively. While USIBWC has not achieved a sustained monthly flow of 35 MGD as of December 2025, the self-monitoring data from September and October 2025 show only modest increases in TSS compared to its original 2021 permitted effluent limitation.[2]

This Order does not change concentration-based WQBELs, and the corresponding WQOs in the California Ocean Plan must be met for USIBWC to be in compliance with this Order. Despite higher concentration-based TBELs and higher MERs for TBELs and WQBELs, the increase to 35 MGD with 10 MGD only receiving advanced primary treatment is expected to result in an improvement to receiving water quality in the Pacific Ocean. Improvement in receiving water quality is due to the reduction of transboundary flows of untreated domestic and industrial wastewater in the lower Tijuana River and near-shore coastal waters. Overall water quality of affected water bodies improves significantly when any amount of untreated wastewater is prevented from entering the U.S. through the Tijuana River Valley. Increased flow to the SBIWTP also gives USIBWC the opportunity to provide treatment to the incremental wastewater volume. As previously mentioned, absent the treatment at the SBIWTP, these flows would remain untreated in the River due to insufficient capacity in the City of Tijuana's municipal wastewater conveyance and treatment system.

This Order complies with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16, and no degradation of the receiving water is expected.

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

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on $CBOD_5$, 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

[2] In September and October 2025, USIBWC reported a 30-day average TSS Percent Removal of 83.24% and 82.61%, respectively, compared to its permitted effluent limitation of ≥85%. USIBWC complied with the interim effluent limitation for 30-day average TSS Percent Removal of ≥82%, as required by Cease and Desist Order No. R9-2025-0139.

applicable federal technology-based requirements. These limitations are not more stringent than required by the CWA.

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

### 4.5. Interim Effluent Limitations – Not Applicable

### 4.6. Land Discharge Specifications – Not Applicable

### 4.7. Recycling Specifications – Not Applicable

## 5. Rationale for Receiving Water Limitations

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

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

The Ocean Plan Bacteria Standards were amended in March 2019 and include new standards for fecal coliform and enterococci. As a result, this Order includes receiving water limitations for fecal coliform and enterococci based on the 2019 Ocean Plan Bacteria Standards.

## 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 the Standard Provisions (Attachment D).

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

### 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; revisions to provide for diversion of transboundary flows from the Tijuana River to the Facility for storage, treatment, and conveyance to the South Bay Ocean Outfall; or adoption of new or revised regulations, water quality control plans, or policies by the State Water Board or the San Diego Water Board, including revisions to the Basin Plan or Ocean Plan.

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

##### 6.2.2.1. Spill and Transboundary Wastewater Flow Prevention and Response Plans (Prevention/Response Plan)

The Discharger completed a Prevention/Response Plan pursuant to the previous Order, Order No. R9- R9-2014-0009, on December 22, 2014, and revised it on July 13, 2015. This Order requires the Discharger to prepare and submit an updated Flow Prevention/Response Plan for approval by the San Diego Water Board no later than 180 days after the effective date of this Order.

###### 6.2.2.1.1. Proper Operation and Maintenance of Wastewater and Other Materials and Treatment Works

Sanitary collection and treatment systems experience periodic failures which may result in discharges that may affect waters of the United States and/or State. There are many factors which may affect the likelihood of a spill. To ensure appropriate

funding, management, and planning to reduce the likelihood of a spill, and to increase the level of response if a spill does occur, this Order requires the Discharger to maintain and implement a Flow Prevention/Response Plan.

6.2.2.1.2. **Transboundary Flows Containing Wastewater**

This Order requires the Flow Prevention/Response Plan to contain provisions to maximize treatment capacity utilization and minimize transboundary wastewater flows through proper operations and maintenance of the canyon collector system. These requirements serve as an indicator to the San Diego Water Board of the Discharger's ability to adequately control flows into the Facility and to respond to emergencies. Emergencies include, but are not limited to, reduction or catastrophic loss of service which could cause or contribute to a degradation of water quality in the Tijuana River and its tributaries or present an elevated risk to public health and safety in the Tijuana River Valley and at beaches along the Pacific Ocean coastline from the international border at Border Field Sate Park and as far north as the City of Coronado.

This Order requires the Flow Prevention/Response Plan to contain these main elements: Roles and Responsibilities, Communication and Coordination with Interested Stakeholders, Inspection and Preventative Maintenance Program, Rehabilitation and Replacement, Training, Spill Event Containment and Cleanup, Notification and Reporting, and Documentation.

The Flow Prevention/Response Plan is intended to be a living document that is reviewed and updated in an iterative process. See section 6.3.2.1.3.1. of the Order. For example, updates to the Flow Prevention/Response Plan may include lessons learned in communications with interested stakeholders and improvement of BMPs used in maintaining the canyon collector systems based on daily inspections, especially after rain events. The Discharger should update the Flow Prevention/Response Plan, as appropriate, such as based on feedback received from interested stakeholders.

This Order requires the Flow Prevention/Response Plan to cover notification of all Transboundary Flow Events and to abate all Spill Events because the Discharger is expected to capture and divert low-volume dry weather transboundary flows to the Facility for treatment. Further, the San Diego Water Board requests that that the Discharger implement the Flow Prevention/Response Plan for dry weather Canyon Collector Transboundary Flow Events that exceed their design capacity and Other Canyon Transboundary Flow Events because it would help protect water quality, public health, and beneficial uses.

6.2.2.1.3. **Canyon Collectors**

Transboundary flows containing pollutants have great potential to cause or contribute to degradation of water quality in the receiving water. The canyon collectors were constructed to divert finite quantities of dry weather transboundary flows in certain border spanning canyons and drainages.

As defined by section 212 of the CWA, a treatment works includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. Treatment works also includes any other method or system for preventing, abating, reducing, storing, treating, separating, or disposing of municipal waste, including storm water runoff, or industrial waste, including waste in combined storm water and sanitary sewer systems. Consistent with this definition, the canyon collectors are considered part of the treatment works of the Facility regulated by this Order.

This Order requires the Flow Prevention/Response Plan to ensure that the Discharger properly operates and maintains the canyon collectors as part of the treatment works in compliance with the CWA, Basin Plan, and Discharge Prohibition 3.1 of this Order.

6.2.2.1.4. **Spill and Transboundary Flow Events Types**

As noted above and in various parts of this Fact Sheet, wastewater flows enter the Tijuana River Valley from multiple sources, including but not limited to the Tijuana River, five canyon collectors, and other canyons. To distinguish between the various sources, Section 6.3.2.1.1 of the Order categorizes types of spill and transboundary flow events as Spill Events, Canyon Collector Transboundary Flow Events, Other Canyon Transboundary Flow Events, and Tijuana River Transboundary Flow Events.

The discharge of waste from the Facility, after it was initially captured or is under the control of the Facility, is a Spill Event. The definition of a Spill Event does not include (1) wet weather flows that bypass the canyon collectors and (2) any portion of dry weather flows which exceed the maximum design capacity of the canyon collector and are not diverted by the canyon collector.

A Canyon Collector Transboundary Flow Event is any flow, including wet and dry weather flows, which overflows or bypasses the canyon collector systems, and are not diverted to the canyon collector's diversion box. Dry weather flows which are less than or equal to the maximum design capacity of the canyon collector and not diverted by the canyon collector for treatment at the SBIWTP are also Spill Events.

6.2.2.1.5. **Spill Event Containment and Cleanup.**

Section 6.3.2.1.2.8 of this Order requires the Flow Prevention/Response Plan to describe guidelines and procedures for taking all feasible steps and necessary remedial actions to 1) control or limit Spill Event volume, 2) terminate Spill Events, and 3) recover as much of the Spill Event volume as possible for proper disposal, including any wash down water. The San Diego Water Board is not requiring the Discharger to implement the Flow Prevention/Response Plan for dry weather Canyon Collector Transboundary Flows which exceed the canyon collector's design capacity, except with regards to investigation and assessment, Tijuana River Transboundary Flow Events, and Other Canyon Transboundary Flow Events. However, the San Diego Water Board requests that the Discharger apply the Flow Prevention/Response Plan to dry weather Canyon Collector Transboundary Flows which exceed the canyon collector's design capacity and

Other Canyon Transboundary Flow Events in an effort to protect water quality and beneficial uses. When a Spill Event occurs, section 6.3.2.4 of this Order requires the Discharger to:

- Minimize the volume of the Spill Event;
- Immediately terminate the Spill Event and prevent or minimize the discharge; and
- Recover and properly dispose of as much of the Spill Event volume as possible, including any wash down water.

Standard provision 1.3 in Attachment D of this Order has particular application to the regulatory basis of these requirements and requires the Discharger to 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 pursuant to 40 CFR section 122.41(d).

6.2.2.2. **Spill and Transboundary Flow Event Reporting Requirements**

Spill and dry weather Canyon Collector Transboundary Flow Event reporting requirements have been established in section 6.3.2.4 of this Order to determine compliance with Discharge Prohibitions 3.1 and 3.2; provide appropriate notification to public health agencies, such as the Cal OES and San Diego County DEH, for the protection of public health; and to address lack of reporting, lack of detailed information when reporting, and lack of response when these details are requested. Additionally, Spill and dry weather Canyon Collector Transboundary Flow Event reporting will provide information regarding the background quantity of Transboundary Flow Events which may traverse the Tijuana River Valley and reach the Pacific Ocean or travel to nearby beaches with recreational beneficial uses. This information may also be used to determine if any receiving water limitation exceedances in ocean waters may be attributed to a Spill or dry weather Canyon Collector Transboundary Flow Event. Spill and dry weather Canyon Collector Transboundary Flow Event Reporting is consistent with federal and state laws, as explained in section 7 of this Fact Sheet. Minimal staff time will likely be required to monitor and report Spill and dry weather Canyon Collector Transboundary Flow Events. Thus, the burden, including costs, of these reports bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. This Order does not require the Discharger to investigate, assess, contain, or cleanup Other Canyon Collector Transboundary Flow Events, but encourages the Discharger to report such events.

All equipment must be washed prior to transport to the event site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.

6.2.2.3 **Asset Management Plan**

Section 6.3.2.6 of this Order requires the Discharger to develop and implement an Asset Management Plan. Asset management is the practice of managing infrastructure capital assets to minimize the total cost of owning and operating these assets while delivering the desired service levels. Many utilities use asset management to pursue and achieve sustainable infrastructure and proper operations and maintenance. A high-performing asset management program includes detailed asset inventories, operation and maintenance tasks, and long-range financial planning. A well-established Asset Management Plan will allow the Discharger to prioritize and plan for anticipated and unexpected Facility maintenance, rehabilitation and replacement, and long-range financial planning. Standard Provision 1.4 in Attachment D of this Order is based on the provisions of 40 CFR 122.41(e) and requires the Discharger to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Asset management planning provides a framework for ensuring the Discharger has sufficient financial and technical resources to continually maintain the operational integrity of the Facility. Asset management requirements have been established in this Order to ensure compliance with Standard Provision 1.4 in Attachment D of this Order and the requirements of 40 CFR section 122.41(e).

### 6.2.3. Best Management Practices and Pollution Prevention

The Ocean Plan requires dischargers to develop and conduct a pollutant minimization program under specified circumstances, including where a calculated effluent limit is lower than certain reporting levels and there is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation. (Ocean Plan, Chapter III.C.9.) This Order includes the Pollutant Minimization Program as required by the Ocean Plan. As explained in the Ocean Plan, the goal of the program is to reduce potential sources of pollutants by using source control measures if the specified circumstances occur. If the Discharger is required to implement the Pollutant Minimization Program, it will be required to, among other things, submit a control strategy designed to proceed towards the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation.

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

6.2.4.1. This Order carries over provisions from Order No. R9-2014-0009 to ensure that new treatment facilities and expansions of existing treatment facilities are completely constructed and operable prior to initiation of the discharge from the new or expanded facilities.

6.2.4.2. This Order requires the Facility to be protected against impacts of flooding from 100-year frequency Tijuana River flows which is similar to a provision from the previous Order, Order No. R9-2014-0009, requiring that the Facility be protected against the impacts of flooding from peak stream flows.

6.2.4.3. This Order carries over a provision from Order No. R9-2014-0009 to ensure the Facility is protected against the impact of storm events.

6.2.4.4. This Order adds a provision to ensure the Facility is protected against regional impacts due to climate change (e.g., sea level rise and floods). Compliance with this provision is implemented through development and implementation of applicable measures identified in the Climate Change Action Plan which is required to be submitted within three years of the effective date of this Order pursuant to section 6.1 of the MRP (Attachment E).

6.2.4.5. This Order adds a provision based on the requirements of 40 CFR section 122.41(e) to ensure the Facility has adequate power.

### 6.2.5. Special Provisions for Wastewater Facility

6.2.5.1. **South Bay Outfall Capacity Report**

To ensure that sufficient capacity is available to accommodate potential growth in the future, this Order requires the Discharger to evaluate the capacity of the SBOO during the term of this Order and submit their findings to the San Diego Water Board.

6.2.5.2 **Treatment Plant Capacity Exceedance Action Plan** During the term of Order No. R9-2014-0009, the Facility experienced several events of excessive influent flows that exceeded the treatment system design capacity and resulted in exceedances of effluent limitations. To ensure the Discharger has a plan to address excessive influent flows and ensure proper operations and maintenance of the Facility, this Order requires the Discharger submit a Treatment Plant Capacity Exceedance Action Plan that documents the steps the Discharger will take in the event influent wastewater flows exceed the design capacity of the Facility.

6.2.5.3. **Influent Action Levels and Source Control Requirements**

Requirement G.1 of Order No. 96-50 stated "[i]n consultation with the Government of Mexico, the discharger shall develop and implement mass emission rate and concentration limitations for the influent to the Facility (influent limitations) for pollutants that may cause or contribute to interference, pass through or other problems described at 40 CFR section 403.5. The influent limits shall prevent violations of the Ocean Plan and this Order."

Requirement G.4 of Order No. 96-50 required the Discharger to submit a project report to include influent limitations, the basis for the influent limitations, a comparison of the influent limitations with the Facility influent and with any Mexican wastewater quality standards, a sensitivity analysis, and an achievability analysis by June 18, 1997.

On June 4, 1997, the San Diego Water Board received a report titled *Development of Headworks Allocations for the South Bay International Wastewater Treatment Plant - Final Report* (June 1997 Final Report). The June 1997 Final Report identified 16 primary pollutants of concern, including arsenic, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, zinc, total HCH (Lindane), Aldrin, DDTs, PAHs, and carbon disulfide.

On September 17, 1997, the San Diego Water Board adopted Addendum No. 1 to Order No. 96-50 which established advanced primary treatment influent limitations for 12 of the 16 primary pollutants of concern which were identified in the June 1997

Final Report (including arsenic, beryllium, cadmium, chromium, copper, cyanide, lead, mercury, nickel, silver, zinc, total HCH (Lindane)). Influent limitations could not be developed for Aldrin, DDTs, PAHs, or carbon disulfide, but these parameters were monitored according to Monitoring and Reporting Program No. 96-50.

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Order R9-2014-0009 required the Discharger to develop and implement updated influent limitations (also known as Maximum Allowable Headworks Allocations (MAHA) Report). In consultation with the San Diego Water Board and the government of Mexico, the Discharger was required to review and update influent limitations, as necessary, to take into account (1) the Facility's treatment upgrade from advanced primary treatment capabilities to secondary treatment capabilities; and (2) any changes that may have occurred in the make-up or quantity of industrial users contributing loadings to the Facility via the City of Tijuana's wastewater conveyance system.

The Discharger submitted the MAHA Report on June 18, 2018. Through Amending Order No. R9-2019-0012, the proposed influent limitations in the June 18, 2018 MAHA Report were incorporated into Order R9-2014-0009 and superseded the Interim Influent Limitations that were carried over from Order No. 96-50.

This Order modifies the influent limitations to be influent action levels. Pollutants in the influent into the Facility may [1] inhibit or disrupt the Facility, its treatment process and operations, or its sludge processes, use, or disposal; [2] pass through the Facility in quantities or concentrations that cause or contribute to an exceedance of an applicable water quality standard in the receiving water or otherwise be incompatible with the treatment works; or [3] cause other problems as described at 40 CFR section 403.5. The goals of any response to an exceedance of the influent action levels should be to prevent an exceedance of any effluent limitations and applicable water quality standard in the receiving water for the protection of water quality, beneficial uses, and public safety.

This provision has been modified to enhance communication between the Discharger and the San Diego Water Board regarding pollutants in the influent, the Discharger's responses to an exceedance of an influent action level, the impact of any exceedance of the influent action level on the Facility, and repairs necessary to correct the problem. This information will help the San Diego Water Board assess whether the Discharger is ensuring the proper operations and maintenance of the Facility in a timely manner, which will prevent an exceedance of any effluent limitations and applicable water quality standard in the receiving water for the protection of water quality, beneficial uses, and public safety.

This Order does not require the Discharger to consult or coordinate with Mexico; however, consultation and coordination with Mexico may be an effective and efficient response to an exceedance of an influent action level.

This Order requires the Discharger to develop and implement updated influent action levels if the Discharger becomes aware of significant changes to influent characteristics. In consultation with the San Diego Water Board and interested

stakeholders (as defined in section 6.3.5.3.2.1.1 of this Order), the Discharger must review and update influent action levels, as necessary, to take into account any changes that may have occurred in the make-up or quantity of industrial users contributing loadings to the SBIWTP via the City of Tijuana's wastewater conveyance system.

6.2.5.4. **Sludge (Biosolids) Requirements**

The use and disposal of biosolids within the U.S. is regulated under State and federal laws and regulations, including permitting requirements and technical standards included in 40 CFR part 503. The Discharger is required to comply with the standards and time schedules contained in 40 CFR part 503 for biosolids used or disposed of within the U.S.

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

6.2.5.5.

6.2.5.6. **Requirements for Receipt of Anaerobically Digestible Material**

Some wastewater facilities choose to accept organic material such as food waste, fats, oils, and grease into their anaerobic digesters for co-digestion to increase production of methane and other biogases for energy production and to prevent such materials from being discharged into the collection system, which could cause Spill Events. The California Department of Resources Recycling and Recovery has proposed an exemption from requiring Process Facility/Transfer Station permits where this activity is regulated under WDRs or NPDES permits. The proposed exemption is restricted to anaerobically digestible material that has been prescreened, slurried, and processed/conveyed in a closed system to be co-digested with regular wastewater facilities sludge. The proposed exemption requires that a wastewater facility develop Standard Operating Procedures (SOPs) for the proper handling, processing, tracking, and management of the anaerobically digestible material before it is received by the wastewater facility.

The SOPs are required for wastewater facilities that accept hauled food waste, fats, oil, and grease for injection into anaerobic digesters. The development and implementation of SOPs for management of these materials is intended to allow the California Department of Resources Recycling and Recovery to exempt this activity from separate and redundant permitting programs. If the wastewater facility does not accept food waste, fats, oil, or grease for resource recovery purposes, it is not required to develop and implement SOPs.

### 6.2.6. Other Special Provisions – Not Applicable

### 6.2.7. Compliance Schedules – Not Applicable

## 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 sections 13267 and 13383 also authorize the San Diego Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP (Attachment E) establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. The cost of compliance with the MRP (Attachment E) to USIBWC may be reduced if costs are shared with the City of San Diego, which jointly own and operate the SBOO. The reports required by the MRP (Attachment E) are needed to ensure compliance with the Order, protect beneficial uses, and obtain other benefits as described in this Fact Sheet and the MRP (Attachment E). Thus, the burdens, including costs, of the MRP (Attachment E) required by this Order bear a reasonable relationship to the need for and benefits to be obtained from the MRP (Attachment E).

## 7.1. Core Monitoring Requirements

### 7.1.1. Influent Monitoring

Influent monitoring is required to assist with source control investigations, to assess the performance of the treatment facility, and to evaluate compliance with influent and effluent limitations. Influent monitoring requirements have been carried over from Order No. R9-2014-0009.

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

### 7.1.2. Effluent Monitoring

Effluent monitoring is required to determine compliance with the conditions of this Order, to identify operational problems, to improve plant performance, and to conduct reasonable potential analyses for subsequent orders. Effluent monitoring also provides information on wastewater characteristics for use in interpreting water quality and biological data. Effluent monitoring requirements have been carried over from Order No. R9-2014-0009, with the following exceptions:

7.1.2.1. This Order requires monitoring the effluent for fecal coliform and enterococci if the overall compliance rate with the receiving water limitations for bacterial characteristics at section 5.1.1 of this Order is below 90% within a rolling one-year period or a single monitoring location exceeds the bacteria receiving water limitations more than 50% of the time within a rolling one-year period for offshore monitoring locations and within a rolling quarterly period for kelp/nearshore monitoring locations, and the source of the receiving water exceedances is unknown. If required, the Discharger is required to monitor the effluent the same day as the parameter is monitored in the receiving water. This monitoring is needed to document the effluent's relationship with the receiving water monitoring data.

7.1.2.2. This Order removes the requirement to monitor for acute toxicity.

7.1.2.3. Wastewater discharges of organic carbon and nutrients to ocean waters can contribute to ocean acidification. Upon discharge to ocean waters, organic carbon is broken down by bacteria, which consume dissolved oxygen during the decomposition process, triggering hypoxic conditions, increasing carbon dioxide ($CO_2$) levels and lowering pH. When nutrients such as nitrogen and phosphorus are

introduced to ocean waters, they can trigger algae blooms which create more dissolved $CO_2$ when the algae dies. Following death of the algae, the algae decomposed by bacteria further decreases dissolved oxygen levels and increases acidity.

This Order adds monthly monitoring requirements for ammonium, total nitrogen, nitrate, nitrite, total organic nitrogen, total phosphorus, phosphate, total organic carbon, dissolved inorganic carbon, dissolved iron, alkalinity, and salinity to gather data on the contribution of the discharge to ocean acidification, hypoxia, and harmful algal blooms. After one year of monitoring, the monitoring frequency for these parameters may be reduced from monthly to quarterly.

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

### 7.1.3. Whole Effluent Toxicity Testing Requirements

This Order contains chronic toxicity effluent limitations as described in section 4.3.5 of this Fact Sheet.

Consistent with the requirements of the Ocean Plan, section 3.3.6 of the MRP (Attachment E) requires the Discharger to develop an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan and submit the Initial Investigation TRE Work Plan within 90 days of the effective date of this Order. The Initial Investigation TRE Work Plan must describe steps the Discharger intends to follow if the effluent limitation for chronic toxicity is exceeded.

Section III.C.10 of the Ocean Plan requires a TRE if a discharge consistently exceeds an effluent limitation based on a toxicity objective in Table 3 of the Ocean Plan. To determine if the discharge consistently exceeds the chronic toxicity effluent limitation, this Order requires the Discharger to notify the San Diego Water Board and enter a TRE Trigger Phase. During the TRE Trigger Phase, if any of the six successive toxicity tests demonstrate toxicity, in accordance with section III.C.10 of the Ocean Plan, the Discharger is required to submit a Detailed TRE Work Plan in accordance with its submitted Initial Investigation TRE Work Plan and USEPA guidance 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 may also implement a Toxicity Identification Evaluation (TIE), as necessary, based upon the magnitude and persistence of toxicity effluent limitation exceedances. Once the source of toxicity is identified, the Discharger must take all reasonable steps to reduce the toxicity to meet the chronic toxicity effluent limitation identified in section 4.1 of this Order.

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

*Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054,1996).

The above TRE Trigger Phase (a minimum of six succeeding tests) 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 effluent limitation of this Order and prevent recurrence of exceedances of the effluent limitation, and a time schedule for implementation of any planned corrective actions. The Discharger must implement any planned corrective actions in the TRE Final Report in accordance with the specified time schedule, unless otherwise directed in writing by the San Diego Water Board. The corrective actions and time schedule must be modified at the direction of the San Diego Water Board.

Refer to section 3.3 of the MRP (Attachment E).

## 7.2. Ocean Receiving Water and Tijuana River Valley Monitoring Requirements

The receiving water and sediment monitoring requirements set forth below are designed to measure the effects of the SBOO discharge on the Pacific Ocean. The Tijuana River Valley monitoring requirements set forth below are designed to measure the effects of transboundary flows that bypass the canyon collector systems on the Tijuana River and coastal Pacific Ocean. These monitoring requirements will remain in effect on an interim basis, pending development of a new and updated monitoring and assessment program. Monitoring at locations in Mexico is dependent on the approval of the Mexico government. Monitoring is not required if the Mexico government does not grant permission to enter and sample Mexico waters. In the event that the Mexico government does not grant permission to conduct the monitoring, the Discharger is required to provide written notice to the San Diego Water Board. The purpose of the receiving water monitoring in Mexico is to ensure representative sampling of the discharge's impact on water quality and beneficial uses. Sampling in the waters of Mexico provides regional context and essential information regarding the potential impact of the SBOO discharge south of the outfall and, thus, south of the border. To truly assess the potential impacts of the SBOO discharge on the marine environment, it is necessary to sample throughout the water column in all directions around the outfall, whether that be in State or international waters.

Refer to section 4 of the MRP (Attachment E).

### 7.2.1. Ocean Receiving Water Monitoring Requirements

#### 7.2.1.1. Shoreline Water Quality Monitoring Requirements

Shoreline water quality monitoring is required to determine if the effluent is causing or contributing to exceedances of the water quality standards in the shoreline, the area where the ocean surface waves come closer to shore and break. This Order requires a minimum of five samples for fecal coliform within a rolling 30-day period. This change reflects the new bacterial provisions contained in the 2019 amendment

to the Ocean Plan, which requires the 30-day geometric mean for fecal coliform be calculated using the five most recent samples. The 2019 amendment to the Ocean Plan also removes the requirement to conduct repeat sampling if a single sample exceeds any of the bacterial single sample maximum standards. Thus, this repeat sampling requirement has not been carried over from Order No. R9-2014-0009. This Order also modifies the GPS coordinates for monitoring locations S4 and S5 due to access issues. Shoreline monitoring locations S-0, S-2, and S-3 are located in Mexico and samples at the locations are currently collected by agencies in Mexico and provided to the Discharger for analyses in the U.S. Monitoring location S-2 and S-3 have been incorporated into the monitoring and reporting program for the SBIWTP since the adoption of Order No. 96-50 by the San Diego Water Board on November 14, 1996. Monitoring location S-0 replaced monitoring location S-1 following adoption of Order No. R9-2014-0009 by the San Diego Water Board on June 26, 2014. Sampling at monitoring locations S-0, S-2, and S-3 is recommended and requested but not required as the stations are located in Mexico and sample collection is subject to the permission of the Mexico government. The San Diego Water Board recommends monitoring at these locations to ensure representative sampling of the effluent's impact on water quality and beneficial uses. The data collected at these monitoring locations are also useful for differentiating the effects of shoreline sewage discharges in Mexico from the effects of discharge through the SBOO. During certain oceanographic conditions, sewage discharges in Mexico can be transported north causing exceedances of receiving water limitations for fecal indicator bacteria at shoreline monitoring locations in the U.S.

Refer to section 4.1.1 of the MRP (Attachment E).

7.2.1.2. **Offshore and Kelp/Nearshore Water Quality Monitoring Requirements**

Offshore and kelp/nearshore water quality monitoring is required to determine if the effluent is causing or contributing to exceedances of the water quality standards outside of the ZID, to determine the fate of the effluent plume, to evaluate the contribution of the discharge to ocean acidification, and to gather data for future permit reissuances. Offshore and kelp/nearshore monitoring requirements have been carried over from Order No. R9-2014-0009, with the following exceptions:

7.2.1.2.1. This Order requires a minimum of five fecal coliform samples within a rolling 30-day period to evaluate the compliance with the 30-day geometric mean receiving water limitation for fecal coliform, which is based on the five most recent samples.

7.2.1.2.2. This Order requires the Discharger to monitor for the Human Marker HF183 if the overall compliance rate with the receiving water limitations for bacterial characteristics at section 5.1.1 of this Order is below 90% within a rolling one-year period or a single monitoring location exceeds the bacteria receiving water limitations more than 50% of the time within a rolling one-year period for offshore monitoring locations and within a rolling quarterly period for kelp/nearshore monitoring locations, and the source of the exceedances is unknown. If the source of where the fecal contamination causing the bacteria receiving water limitation exceedances originated is known (e.g., the Tijuana River, the discharge through the SBOO, or some other known source), the Discharger is required to submit a

written report to the San Diego Water Board describing the specific cause and source of the exceedances and if human fecal waste is the cause, a strategy for prioritizing the bacterial receiving water sites for remediation. If the San Diego Water Board concurs with the conclusions of the report, HF183 monitoring is not required. If HF183 monitoring is required, the San Diego Water Board will direct the Discharger in writing to implement the HF183 monitoring and development of a strategy for remediating the bacterial receiving water sites based on measured human fecal waste levels. The San Diego Water Board will provide the Discharger with a written explanation regarding the need for the information and the evidence that supports requiring the Discharger to provide the information. If directed to implement HF183 monitoring, the Discharger is required to collect samples for the Human Marker HF183 concurrently with samples collected for fecal coliform at the offshore and/or kelp/nearshore monitoring locations experiencing the exceedances. The Human Marker HF183, derived from the 16S rRNA gene of Bacteroides, has been widely used to identify sewage pollution in coastal waters. Monitoring for the Human Marker HF183 will be used to confirm the presence of human fecal material when the single sample maximum receiving water limitation for fecal coliform is exceeded. After the San Diego Water Board implements the requirement to collect samples for the Human Marker HF183, analysis of the Human Marker HF183 is only required if the concurrently collected sample for fecal coliform exceeds the single sample maximum receiving water limitation. Results for the Human Marker HF183 is used for informational purposes only, there is no receiving water limitation for the Human Marker HF183.

7.2.1.2.3. This Order requires monitoring for ammonia (as N) and total nitrogen at the offshore and kelp/nearshore monitoring locations to evaluate compliance with receiving water limitations and to assist with identification of the wastewater plume discharged from the SBOO. Nutrient monitoring can also be used evaluate the contribution of nutrients to the receiving water, which has implications for ocean acidification, hypoxia, and harmful algal blooms. This monitoring is not required if implementing the plume tracking program.

7.2.1.2.4. This Order requires monitoring for pH by spectrophotometric technique and total alkalinity in the laboratory at a subset of offshore monitoring locations. Measurements of pH by spectrophotometric technique and total alkalinity is used provide a more accurate measure of pH in the receiving water and to calibrate the pH measurements collected by potentiometric sensors (i.e., glass electrodes) attached to conductivity temperature depth (CTD) profile samplers utilized during routine receiving water monitoring. Section 5.1.3.2 of this Order requires that pH shall not be changed at any time more than 0.2 units from that which occurs naturally. The imprecision of pH measurement technology (e.g., glass electrodes) has been well documented in the scientific literature. The margin of error associated with using dated technology to measure pH can be greater than 0.2 pH units, which makes it impossible to achieve the precision required to measure compliance with the pH receiving water limitation. However, calibrating glass electrodes with measurements of pH by spectrophotometric technique and total

alkalinity in the laboratory can increase the precision of the glass electrodes measurements collected in the field.

In addition to imprecision of glass electrodes, emerging evidence suggests that monitoring parameters other than pH, especially aragonite saturation state (relevant to shell-building in calcifying organisms) and partial pressure of carbon dioxide (relevant to fish behavior and navigation) may be needed to assess ocean acidification effects (see *The West Coast Ocean Acidification and Hypoxia Science Panel, Major Findings, Recommendations, and Actions*, Appendix G at Pgs. 26-27 available at https://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/926_WestCoastOAHSciencePanel.pdf). While the main driver of ocean acidification is due to atmospheric carbon dioxide, the discharge of anthropogenic nutrients from wastewater treatment plants may exacerbate ocean acidification, especially on smaller spatial scales. A recent study[3] suggests that nutrients from wastewater effluent can provide a significant source of nitrogen for nearshore productivity in Southern California waters, and may be equivalent to upwelling on smaller spatial scales that are more relevant to algal blooms. Anthropogenic nutrients from wastewater effluent may increase algal blooms. As these algal blooms die off, the decay promotes bacterial respiration resulting in increased carbon dioxide, lower pH, and decreases in oxygen (e.g., hypoxia). This Order requires the Discharger to calculate aragonite saturation to evaluate the potential effects of the discharge on ocean acidification.

Refer to section 4.1.2 of the MRP (Attachment E).

7.2.1.3. **Benthic Monitoring Requirements**

Sediments integrate constituents that are discharged to the ocean. Most particles that come from the SBOO discharge, and any associated contaminants, will eventually settle to the seafloor where they are incorporated into the existing sediments. Sediments can accumulate these particles over the years until the point where sediment quality is degraded and beneficial uses are impaired.

Section 4.1.3 of the MRP (Attachment E) requires periodic assessment of sediment quality to evaluate potential effects of the SBOO discharge and compliance with narrative water quality standards specified in the Ocean Plan. The required 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.

[3] Howard, M.D.A., M. Sutula, D.A. Caron, Y. Chao, J.D. Farrara, H. Frenzel, B. Jones, G. Robertson, K. McLaughlin, A. Sengupta. 2014. Anthropogenic nutrient sources rival natural sources on small scales in the coastal waters of the Southern California Bight. Limnology and Oceanography 59:285-297.

The benthic community is strongly affected by sediment composition (e.g., sand, silt, and clay distributions), sediment quality (e.g., chemistry, toxicity), and water quality. Because benthic macroinvertebrates (e.g., infauna) are dependent on their surroundings, they often serve as important biological indicators that reflect the overall conditions of the marine environment.

This Order carries over the sediment chemistry and infauna monitoring requirements from Order No. R9-2014-0009, including continuing to implement the sediment toxicity recommendations in the Sediment Toxicity Pilot Study and the requirement to conduct sediment chemistry and infauna monitoring at 40 randomly selected monitoring locations in collaboration with the City of San Diego. However, this Order makes the sediment chemistry parameters consistent with the parameters monitored for the Southern California Bight Regional Monitoring Program coordinated by SCCWRP, with the exception of fipronils pesticides to save on monitoring costs. The analysis of polybrominated diphenyl ethers (PBDEs) may be delayed until 2022 to allow the Discharger's and/or the City of San Diego's laboratory sufficient time to certify and validate the analytical method.

Refer to section 4.1.3 of the MRP (Attachment E).

#### 7.2.1.4. Fish and Invertebrate Monitoring Requirements

Marine aquatic invertebrates are excellent indicators of ecosystem health because they are ubiquitous, abundant, diverse, and typically sedentary. The growth, survival, and reproduction of aquatic invertebrates are all sensitive to declines in environmental health, making analysis of assemblage structure a good ecosystem monitoring tool. Additionally, many pollutants discharged into receiving waters have the potential to bioaccumulate and persist in the tissues of aquatic organisms, including marine fishes. Chemical pollutants that bioaccumulate tend to magnify in concentration as they pass through the aquatic food chain. Fish and macroinvertebrate monitoring data is required to assess human health risks for individuals who may consume fish and to assess trends of contaminants levels in the receiving water over time.

Fish and invertebrate monitoring requirements have been carried over from Order No. R9-2014-0009, except this Order makes the parameters monitored in fish tissue consistent with the parameters monitored in sediment.

Refer to section 4.1.4 of the MRP (Attachment E).

#### 7.2.1.5. Ocean Receiving Water Monitoring Program Reporting Requirements

This Order carries over the requirement to submit Interim and Biennial Receiving Water Monitoring Reports. These reports may be submitted as an integrated report covering the receiving water monitoring conducted under this MRP, the MRP for the SBWRP, and the MRP for the Point Loma Wastewater Treatment Plant discharge through the Point Loma Ocean Outfall. The Interim Reports provide a summary of receiving water monitoring data for the first even year in each biennial reporting cycle. The Biennial Reports provide a full assessment and detailed evaluation of the receiving water monitoring data collected over the two-year monitoring cycle.

The main objectives of the Biennial Report analysis is to 1) evaluate compliance with the receiving water limitations of this Order, including California Ocean Plan water quality objectives and water-contact bacteriological standards; 2) identify any biological or chemical changes in the receiving water that may be associated with the wastewater discharge; and 3) answer the key regulatory questions posed in the MRP that the receiving water monitoring program was designed to answer. The assessment and evaluation of the receiving water monitoring data in the Biennial Reports documents any effects of wastewater discharge, other anthropogenic influences (e.g., storm water discharge, urban runoff), or natural factors (e.g., climate changes) on coastal water quality, seafloor sediment conditions, and local marine organisms.

During the same year Biennial Reports are submitted, the Discharger is required to present to the San Diego Water Board at a regularly scheduled public meeting, a State of the Ocean oral report that summarizes the findings in the Biennial Report. The Receiving Water Monitoring Reports and State of the Ocean oral report help to educate the San Diego Water Board and the public about potential water quality impacts resulting from the discharge in a concise and approachable manner.

Refer to section 4.1.5 of the MRP (Attachment E).

### 7.2.2. Tijuana River Valley Monitoring Requirements

Clean Water Act (CWA) section 313 (33 USC § 1323) provides that each federal agency having jurisdiction over any property or facility, or engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants is subject to, and must comply with, all federal, State, interstate, and local requirements and administrative authorities for the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity including the payment of reasonable service charges. CWA section 313 applies any substantive and procedural requirements, including reporting requirements. The Discharger owns property and operates facilities and infrastructure in the Tijuana River Valley. Through the ownership and operation of the SBIWTP and appurtenant canyon collector systems, the Discharger engages in acts and/or omissions that result in the discharge of waste to waters of the State and U.S., therefore subjecting the Discharger to the State and administrative authorities granted to the State and the San Diego Water Board.

Water Code section 13383[4], subdivision (a), authorizes the San Diego Water Board to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements … for any person who discharges, or proposes to discharge, to navigable waters … ." Subdivision (b) of section 13383 further authorizes the San Diego Water Board to require any person subject to section 13383 to "establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods,

[4] Water Code section 13383 appears in Chapter 5.5 of the Porter-Cologne Water Quality Control Act, which establishes the authority for the State Water Board to implement the NPDES permit program within the State of California.

sample effluent as prescribed, and provide other information as may be reasonably required."

Water Code section 13267 also provides the San Diego Water Board with the authority to investigate the quality of any waters of the State within its region and, in doing so, may require "any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region" to furnish technical or monitoring program reports, provided that the burden, including costs, of these reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.

Transboundary flows routinely bypass the canyon collector systems and enter the Tijuana River Valley. The term transboundary flow is used in this Order to refer to a variety of flows containing pollutants from Tijuana, Mexico that have historically flowed into the U.S. Transboundary flows, which can be comprised of raw sewage, treated and untreated wastewater, highly polluted storm water runoff, industrial and commercial waste, trash, and dry weather potable water discharges from the Tijuana River watershed, pose one of the most significant threats to water quality and beneficial uses of waters in the San Diego Region. The introduction of sewage, trash, polluted sediment, industrial and commercial waste, heavy metals and/or other pollutants into the Tijuana River Valley via transboundary flows could severely harm the beneficial uses of the Tijuana River, the Tijuana River Estuary, and the Pacific Ocean. Transboundary Flow Events negatively impact the Tijuana River Valley's wetlands and riparian areas and biota, endanger public health, and constrain local coastal economies. For example, Transboundary Flow Events may have caused numerous beach closures in local coastal communities.

The Discharger discharged, discharges, or is suspected of discharging waste in the form of transboundary flows and other waste through the canyon collector systems it owns, operates, and maintains.[5] The discharged transboundary flows and other waste enter the Tijuana River Valley and harm beneficial uses in the Tijuana River, the Tijuana River Estuary, and the Pacific Ocean. Consistent with federal and state law, as explained in section 7 of this Fact Sheet, this Order establishes monitoring and reporting requirements in the Tijuana River Valley to investigate the extent canyon collector bypasses are contributing to and/or worsening downstream water quality. The State of California and the San Diego Water Board have a strong interest in understanding the nature and extent of transboundary flows that enter the state from the southern border. The Discharger controls operation and maintenance of the canyon collector systems. The Discharger has a measure of control over the waste.

[5] On February 5, 2020, the San Diego Water Board issued Investigative Order No. R9-2020-003, An Order Directing the United States International Boundary and Water Commission to Submit Technical Reports Pertaining to an Investigation of Pollution, Contamination, and Nuisance from Transboundary Flows in the Tijuana River Valley (Order No. R9-2020-0030). Order No. R9-2020-0030 contained extensive findings regarding the Discharger's discharge of waste through the canyon collector systems and the impact of those discharges on downstream waters of the state. Order No. R9-2020-0030 was rescinded on February 25, 2021.

Thus, the Discharger is in the best position to monitor water quality in the canyon collector systems and evaluate the water quality and beneficial use impacts of transboundary flows.

The Tijuana River Valley monitoring locations are based on the need to identify the impacts from pathogens, toxic pollutants, and trash that bypass the canyon collector systems and enter the Tijuana River Valley. Additionally, these monitoring and reporting requirements in the Tijuana River Valley will provide information regarding the background quantity and quality of Canyon Collector Transboundary Flow Events which reach the Pacific Ocean and/or travel to nearby beaches with recreational beneficial uses. This information may also be used to determine if any receiving water limitation exceedances may be attributed to a Transboundary Flow Event.

The five canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6) will provide information on flows that bypass the canyon collector systems. The Dairy Mart Bridge monitoring location (i.e., TRV-1) will provide information related to the downstream extent and magnitude of the impacts from the flows that bypass the Stewart's Drain canyon collector system. Dry weather transboundary flows at the Stewart's Drain canyon collector have been increasing in frequency due to infrastructure issues in Mexico, as well as the SBIWTP. Between November 2020 and February 2021, there were 19 dry weather transboundary flows at the Stewart's Drain canyon collector resulting in the release of over 1.2 million gallons of untreated wastewater to waters of the U.S. and/or State. Some of these transboundary flows could have been diverted to the SBIWTP by the Stewart's Drain canyon collector; however, the pipeline from Mexico to the SBIWTP was at capacity. When transboundary flows at Stewart's Drain are not occurring, Dairy Mart Bridge can serve as a control monitoring location to prevent a skewed assessment of the impact from Canyon Collector Transboundary Flows by distinguishing the influences and/or contributing factors of transboundary flows at the Tijuana River main channel. The Tijuana River Mouth monitoring location (i.e., monitoring location TRV-7) will provide information on the pollutants that flow from the Tijuana River into the Pacific Ocean in relation to the pollutants discharged through the SBOO.

The Tijuana River is Clean Water Act 303(d) listed as impaired for ammonia, total nitrogen, phosphorus, trace elements, benthic community effects, cadmium, chlorpyrifos, diazinon, eutrophic conditions, indicator bacteria, dissolved oxygen, malathion, pesticides, sedimentation/siltation, solids, surfactants, synthetic organics, and trash. The Tijuana River Estuary is Clean Water Act 303(d) listed as impaired for eutrophic conditions, nickel, lead, pesticides, thallium, toxicity, turbidity, and trash. The Pacific Ocean shoreline, Tijuana Hydrologic Unit is Clean Water Act 303(d) listed as impaired for fecal indicator bacteria. Total maximum daily loads (TMDLs) have been or are being developed for some of these impairments. The Tijuana River Valley Monitoring Program will assist with developing the TMDLs and may also identify other impairments that warrant Clean Water Act 303(d) listings.

Refer to section 4.2 of the MRP (Attachment E).

7.2.2.1. **Flow and Water Quality Monitoring Requirements**

The previous Order, Order No. R9-2014-0009, required the Discharger to monitor flow and water quality at the five canyon collector monitoring locations (i.e., monitoring locations TRV-2 through TRV-6). This Order expands the flow and water quality monitoring requirements to evaluate impacts of transboundary flows at the canyon collectors on the downstream waterbodies (i.e., the Tijuana River at Dairy Mart Bridge and coastal ocean waters). This Order also adds monitoring requirements for PBDEs, nonylphenols and nonylphenol ethoxylates, norovirus, entrovirus, and additional pesticides to assist with the development of TMDLs and identify additional impairments. Additionally, the San Diego Water Board recommends the Discharger conduct weekly monitoring for *E. coli* and fecal coliform at Dairy Mart Bridge to evaluate the impact of transboundary flows on public health and beneficial uses. To save on monitoring costs, this Order removes the requirement to monitor for chronic toxicity at the canyon collectors.

Refer to section 4.2.1 of the MRP (Attachment E).

#### 7.2.2.2. Sediment Monitoring Requirements

Sediments can integrate pollutants present in transboundary flows and can provide a historical record of pollutants discharged into the Tijuana River Valley. Contaminated sediment can also be transported to downstream water bodies such as the Tijuana River main channel, Tijuana River Estuary, and the Pacific Ocean shoreline causing impairments to beneficial uses. This Order requires sediment monitoring at the canyon collector monitoring locations and Dairy Mart Bridge twice per permit term.

Refer to section 4.2.2 of the MRP (Attachment E).

#### 7.2.2.3. Trash Assessment

Transboundary flows at the canyons transport trash from Mexico into the U.S. causing impairments to beneficial uses of the Tijuana River Valley. The Tijuana River is Clean Water Act 303(d) listed as impaired for trash and the San Diego Water Board is developing a TMDL to address the trash impairment. Trash in the Tijuana River Valley may also be causing elevated levels of bis (2-ethylhexyl) phthalate (DEHP). DEHP is used in the production of plastics and plastics may leach DEHP. This Order requires the Discharger to conduct two trash assessments per permit term at Smugglers Gulch and Goat Canyon to evaluate the amount and types of trash entering the U.S. due to transboundary flows.

Refer to section 4.2.3 of the MRP (Attachment E).

#### 7.2.2.4. Tijuana River Valley Monitoring Program Reporting

The previous Order, Order No. R9-2014-0009, required the Discharger to report dry weather transboundary flows at the canyon and Tijuana River main channel. During the previous permit term, several transboundary flows started during dry weather, continued during wet weather, and ended during dry weather, making transboundary flow reporting unclear. This Order requires the Discharger to report both wet and dry weather transboundary flows at the canyons and Tijuana River main channel to improve the clarity of reporting requirements and to evaluate the magnitude of

transboundary flows. Reporting of wet weather transboundary flows also provides the public information on the flows crossing the U.S. - Mexico international border.

This Order requires the Discharger to submit a quarterly monitoring reports on the Tijuana River Valley monitoring program that describe the monitoring activities conducted during the quarter, report the analytical data gathered, and provide an analysis of the data. This Order also requires the Discharger to submit a Tijuana River Valley Monitoring Report that provides a full assessment of the monitoring conducted during the permit term. During the same year the Tijuana River Valley Monitoring Report is submitted, the Discharger is required to present to the San Diego Water Board at a regularly scheduled public meeting, a State of the Tijuana River Valley oral report that summarizes the findings in the Tijuana River Valley Monitoring Report. The Tijuana River Valley Monitoring Report and State of the Tijuana River Valley oral report help to educate the San Diego Water Board and the public about potential water quality impacts resulting from the transboundary flows in a concise and approachable manner.

Refer to section 4.2.5 of the MRP (Attachment E).

### 7.3. Groundwater Monitoring Requirements– Not Applicable

### 7.4. Regional Monitoring Requirements

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

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

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

#### 7.4.1. Kelp Bed Canopy Monitoring Requirements

Kelp consists of a number of species of brown algae. Along the central and southern California coast, giant kelp (*Macrocystis pyrifera*) is the largest species colonizing rocky, and in some cases sandy, subtidal habitats. Giant kelp is an important

component of coastal and island communities in southern California, providing food and habitat for numerous animals.

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

### 7.4.2. Southern California Bight Regional Monitoring Program Participation Requirements

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

The Discharger is required to participate in the Southern California Bight Regional Monitoring Program coordinated by SCCWRP, or any other coordinator 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 Bight.

During these coordinated sampling efforts, the Discharger's receiving water sampling and analytical effort, as defined in section 4 of the MRP (Attachment E), may be reallocated to provide a regional assessment of the impact of the discharge of wastewater to the Bight. In that event, the San Diego Water Board shall notify the Discharger in writing that a portion of the requirement to perform the receiving water sampling and analytical effort defined in section 4 of the MRP (Attachment E) is suspended for the duration of the reallocation. Anticipated modifications to the monitoring program will be coordinated so as to provide a more comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollution sources. The level of resources in terms of sampling and analytical effort redirected from the receiving water monitoring program required under section 4 of the MRP (Attachment E) shall equal the level of resources provided to implement the regional monitoring and assessment program, unless the San Diego Water Board and the Discharger agree otherwise. The specific scope and duration of the receiving water monitoring program reallocation and redirection shall be determined and set by the San Diego Water Board, in consultation with the Discharger.

Refer to section 5.2 of the MRP (Attachment E).

## 7.5. Special Studies Requirements

### 7.5.1. Climate Change Action Plan

This Order requires the Discharger to prepare and submit a Climate Change Action Plan (CCAP) within three years of the effective date of this Order.

Changing climate conditions may fundamentally alter the way wastewater facilities are designed and operated. Climate change research indicates the overarching driver of change is increased atmospheric carbon dioxide ($CO_2$) from human activity. The increased $CO_2$ emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges (Δ Sea Level), lead to more erratic rainfall and local weather patterns (Δ Weather Patterns), trigger a gradual warming of freshwater and ocean temperatures (Δ Water Temperature), and trigger changes to ocean water chemistry (Δ Water pH). The changes to the sea level and weather patterns may affect the Facility (e.g., flooding, increased influent flows during wet weather, and heat waves). The changes to the water temperature and pH may affect how the receiving waters reacts to the discharges.

The California Public Resources Code (Public Resources Code) recognizes that anthropogenic greenhouse gas emissions responsible for climate change are also driving major shifts in the chemical properties of the world's oceans (Public Resources Code section 35630(c)). Furthermore, Governor Newsom's Executive Order N-10-1920 directs state agencies to prepare a water resiliency portfolio that meets the needs of California's communities, economy, and environment. The State Water Board's Resolution No. 2017-0012, *Comprehensive Response to Climate Change*, and the San Diego Water Board's Resolution No. R9-2018-0051, *Addressing Threats to Beneficial Uses from Climate Change*, also require a proactive approach to climate change in all State and regional actions.

Refer to section 6.1 of the MRP (Attachment E)

### 7.5.2. Plume Tracking Study

Plume tracking is an ongoing program designed to assess the dispersion and fate of the wastewater plume discharged from the SBOO. Plume tracking can provide useful information for developing and revising future monitoring locations, evaluating compliance with receiving water limitations, and helping to ensure public safety for beaches and water contact recreation in the Pacific Ocean. Determining the conditions under which the plume travels toward the shore allows for more effective action to protect public health associated with beach use. Plume tracking can be used to determine if the plume is moving towards the shore or surface where it may encroach upon water recreation areas and impact beneficial uses. Additionally, plume direction and mixing have a direct effect on sediment loading as the direction of the plume determines where the discharged particles will eventually settle. This Order requires the Discharger to continue to implement the *Plume Tracking Monitoring Plan for the Point Loma and South Bay Ocean Outfall Regions, San Diego* submitted by the Discharger on March 28, 2018.

Refer to section 6.2 of the MRP (Attachment E)

### 7.5.3. Remote Sensing

The Coastal Remote Sensing Study utilizes various aerial and satellite sensors in the visible, near-infrared, and thermal infrared to detect patterns in natural oceanographic variables, point and non-point source terrestrial runoff, and anthropogenic sources, such as the SBOO. Remote sensing image data and subsequent advanced analyses are utilized to spatially and temporally enhance regular field sampling surveys conducted by the Discharger, and to help interpret the results from those surveys. The Discharger shall continue to participate in the Coastal Remote Sensing Study in coordination with the City of San Diego until the study end date of June 30, 2023. After the study end date, the Discharger is required to submit a recommendations report describing whether the study should continue.

Refer to section 6.3 of the MRP (Attachment E).

### 7.6. Other Monitoring Requirements

#### 7.6.1 Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the CWA (33 U.S.C. section 1318), USEPA requires major and selected minor permittees under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: 1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or 2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

Refer to section 1.7 of the MRP (Attachment E)

## 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, the San Diego Water Board staff developed tentative WDRs and encouraged public participation in the WDR adoption process by providing a period of a minimum of 30 days for public review and comment on the Tentative Order.

### 8.1. Notification of Interested Parties

The San Diego Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to

submit written comments and recommendations. Notification was provided by posting a Notice of Public Hearing and Comment and the tentative WDRs on the San Diego Water Board's website for the duration of the public comment period. The Tentative Order was posted on the San Diego Water Board website and emailed to the Discharger and all known interested parties on February 23, 2021.

The public also had access to the meeting agenda including all supporting documents and any changes in meeting dates and locations through the San Diego Water Board's website at: https://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.

To be fully responded to by staff and considered by the San Diego Water Board, the written comments were due at the San Diego Water Board office by 5:00 p.m. on March 25, 2021.

### 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: May 12, 2021
Time: 9:00 AM
Location: No Physical Meeting Location - Webcast Only

Authorized by and in furtherance of Executive Orders:

N-29-20

https://www.gov.ca.gov/wp-content/uploads/2020/03/3.17.20-N-29-20-EO.pdf

and N-33-20

https://www.gov.ca.gov/wp-content/uploads/2020/03/3.19.20-attested-EO-N-33-20-COVID-19-HEALTH-ORDER.pdf

Interested persons were invited to participate. 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 CCR, title 23, sections 2050. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a

Saturday, Sunday, or State holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Petitions may be sent in as follows:

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

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

By email:
waterqualitypetitions@waterboards.ca.gov

By fax:
(916) 341-5199

For instructions on how to file a petition for review, see:
https://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

### 8.5. Information and Copying

The ROWD, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the San Diego Water Board by calling (619) 516-1990.

### 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, 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 ~~Vicente Rodriguez~~Riley Nolan by email at ~~Vicente.Rodriguez~~Riley.Nolan@waterboards.ca.gov ~~or by phone at (619) 521-3966~~.

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

### 1. Ocean Plan Discharge Prohibitions

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

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

1.3. 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.

1.4. The by-passing of untreated wastes containing concentrations of pollutants in excess of those of Table 3 or Table 4 [of the Ocean Plan] to the ocean is prohibited, except as allowed by Federal Standard Provisions I.G and I.H (Attachment D).

1.5. 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.

### 2. Basin Plan Discharge Prohibitions

2.1. 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.

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

2.3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in Water Code section 13376) is prohibited.

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

2.5. 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. Allowances for dilution may be made at the discretion of the San Diego Water Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of

secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.

2.6. 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.

2.7. 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.

2.8. Any discharge to a storm water conveyance system that is not composed entirely of storm water is prohibited unless authorized by the San Diego Water Board. [The federal regulations, 40 CFR section 122.26(b)(13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR section 122.26(b)(2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to an NPDES permit and discharges resulting from firefighting activities.] [section 122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].

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

2.10. 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.

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

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

2.13. 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.

2.14. 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.