



North Coast Regional Water Quality Control Board

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION

5550 Skylane Blvd, Suite A
Santa Rosa, CA 95403-1072
Phone (707) 576-2220 • Fax (707) 523-0135
[California State Water Resources Control Board Website](http://www.waterboards.ca.gov)
(<http://www.waterboards.ca.gov>)

ORDER No. R1-2026-0014
NPDES No. CA0025151
WDID NO. 1B12187NHUM
Waste Discharge Requirements

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

Permittee **California State Polytechnic University, Humboldt**
Name of Facility **Telonicher Marine Laboratory**
Facility Address **570 Ewing Street**
Trinidad, CA 95570
Humboldt County

Table 1. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
001	Waste Seawater, and Filter Backwash	41° 03' 23"	124° 08' 48"	Pacific Ocean

This Order was adopted on:
This Order shall become effective on:
This Order shall expire on:

May 7, 2026
August 1, 2026
July 31, 2031

The Permittee shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than **July 31, 2030**. The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, North Coast Region have classified this discharge as follows: **Minor discharge**.

I, Valerie Quinto, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, North Coast Region on **May 7, 2026**.

Valerie Quinto, Executive Officer

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1. FACILITY INFORMATION

Information describing the California State Polytechnic University, Humboldt (Permittee) Telonicher Marine Laboratory (Facility) is summarized on the cover page and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds:

2.1. Legal Authorities

This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Permittee to discharge into waters of the United States at the discharge location described in Table 1 subject to the WDRs in this Order.

2.2. Background and Rationale for Requirements

The Regional Water Board developed the requirements in this Order based on information submitted as part of the Permittee's application, monitoring and reporting program, 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 this Order and constitutes Findings for this Order. Attachments A through E are also incorporated into this Order.

2.3. Provisions and Requirements Implementing State Law

The provisions/requirements in subsections 3.1, 3.2, 3.5, 3.6, 3.7, 3.8, 3.11, and sections 10.5 of the MRP 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. Notification of Interested Parties

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

2.5. **Anticipated Water Quality Impacts on Disadvantaged or Tribal Communities**

The Permittee, California Polytechnic State University, Humboldt, operates a marine laboratory (Facility) The Facility and Discharge Point 001 are located in the Humboldt WMA within the Trinidad Head Area of Special Biological Significance (ASBS), in Humboldt County. The discharge is classified as "minor" under federal regulations, and during the term of the prior permit, Order No. R1-2019-0037. The most frequent discharge from the Facility's waste seawater system consists of filter backwash. Sand filters are backwashed one to two times per month, resulting in roughly 7,000 to 15,000 gallons of filter backwash water. . The maximum volume from a filter backwash event on June 21, 2021, was 12,686 gallons. The Order does not contain a compliance schedule for meeting applicable water quality objectives, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance (Wat. Code, section 13149.2 (d)); all requirements must be met upon Order adoption. Expanded monitoring and reporting requirements are included in the renewed Order to ensure waste discharges do not exceed water quality objectives.

The Regional Water Board publicly noticed the permit and provided opportunities for public comment. Public notice was provided to interested persons and public agencies in the region with jurisdiction over natural resources in the affected area, including the Sonoma County Health Department. The discharge regulated by this Order is not expected to result in a disproportionate impact to tribal or disadvantaged communities. The Regional Water Board has conducted outreach consistent with Water Code section 189.7.

Public notice was provided to interested persons and public agencies in the region with jurisdiction over natural resources in the affected area, including the Humboldt County Health Department. The discharge regulated by this Order is not expected to result in a disproportionate impact to tribal or disadvantaged communities. The Regional Water Board has satisfied the outreach and findings requirements set forth in Water Code section 189.7 and Water Code section 13149.2, subd. (d).

2.6. **Consideration of Public Comment.**

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

THEREFORE, IT IS HEREBY ORDERED, that Order No. R1-2019-0037 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

- 3.1. The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.
- 3.2. Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.
- 3.3. The discharge of waste at any point not described in Finding 2.2. of the Fact Sheet or authorized by a permit issued by the State Water Resources Control Board (State Water Board) or another Regional Water Board is prohibited.
- 3.4. The discharge of exotic organisms (non-endemic, non-naturalized plants, animals, and microorganisms, including gametes, spores, larvae, and parts of such organisms) is prohibited.
- 3.5. The discharge of chemical additives, including antibiotics and chlorine, is prohibited.
- 3.6. The discharge of waste, including filter solids, resulting from cleaning and maintenance activities, is prohibited.
- 3.7. The discharge of trash, petroleum products, and pesticides is prohibited.
- 3.8. The discharge of any constituents to the ocean at levels in excess of the water quality objectives established by Ocean Plan Table 3 (2019) is prohibited.
- 3.9. The maximum daily discharge from the combined seawater system shall not exceed 123,232 gallons.
- 3.10. Discharges of non-storm water Facility runoff to the ocean (i.e., any discharge runoff from the Facility that reaches the ocean and that is not composed entirely of storm water), except those associated with the waste seawater system and emergency firefighting, are prohibited.
- 3.11. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of the state is prohibited.
- 3.12. The discharge of water containing the following substances is prohibited:
 - 3.12.1. Visible oil and grease;
 - 3.12.2. Material that is floatable or will become floatable upon discharge;
 - 3.12.3. Aesthetically undesirable color or materials.

4. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

4.1. Effluent Limitations – Discharge Point 001

The discharge of filter backwash and waste seawater (sump or storage tank), shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Locations EFF-001A, EFF-001B, and EFF-001D as described in the Monitoring and Reporting Program (MRP) (Attachment E).

Table 1. Effluent Limitations ¹ – Discharge Point 001 (Monitoring Locations EFF-001A, EFF-001B, and EFF-001D)

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Suspended Solids (TSS)	mg/L	--	--	²	--	60
Settleable Solids	ml/L	1.0 ²	1.5 ²	²	--	3.0
pH	s.u.	--	--	--	6.0	9.0
Turbidity	NTU	75	100	--	--	225
Arsenic, Total Recoverable ³	µg/L	--	--	32	--	80
Copper, Total Recoverable ³	µg/L	--	--	12	--	30
Nickel, Total Recoverable ³	µg/L	--	--	20	--	50
Zinc, Total Recoverable ³	µg/L	--	--	80	--	200
Cadmium, Total Recoverable ³	µg/L	--	--	4	--	10
Chromium, Total Recoverable ³	µg/L	--	--	8	--	20

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Polynuclear Aromatic Hydrocarbons (PAHs) ^{3,4}	µg/L	0.0088	--	--	--	--

Table Notes

1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.
2. In no case shall effluent concentrations exceed the Table 2 Ocean Plan effluent limitations.
3. Section 7.11. of this Order describes how compliance with Ocean Plan Table 3 pollutants will be determined.
4. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.

4.2. Interim Effluent Limitations – Not Applicable

This Order does not establish interim effluent limitations or schedules for compliance with final limitations.

4.3. Land Discharge Specifications – Not Applicable

This Order does not authorize discharges to land.

5. GROUND WATER LIMITATIONS – NOT APPLICABLE

This Order does not authorize discharge to land.

6. PROVISIONS

6.1. Standard Provisions

- 6.1.1. **Federal Standard Provisions.** The Permittee shall comply with all Standard Provisions included in Attachment D of this Order.
- 6.1.2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following Regional Water Board standard 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. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- 6.1.2.2. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, final effluent limitation, other specification, or provision of this Order, that may result in significant threat to human health or the environment, such as inundation of treatment infrastructure, breach of pond containment, sanitary sewer overflow, water main break or equivalent release, etc., that results in a discharge to a drainage channel or a surface water, the Permittee shall:
- 6.1.2.2.1. Notify the Regional Water Board within 24 hours of having knowledge of such noncompliance. Spill notification and reporting shall be conducted in accordance with section 5.5 of Attachment D and section 10.5 of the MRP (Attachment E).
- 6.1.2.2.2. Investigate the cause(s) of final effluent limitation and discharge specification exceedances and failures to comply with any prohibition, specification, or provision of this Order that may result in significant threat to human health or the environment.
- 6.1.2.2.3. Identify and implement corrective actions to prevent future exceedances or failures to comply with Order requirements.
- 6.1.2.2.4. Report the results of such investigations and corrective actions implemented in the quarterly SMR as required by MRP section 10.2.6.2.5 and 10.2.6.2.6.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. Reopener Provisions

- 6.3.1.1. **Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.
- 6.3.1.1.1. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.
- 6.3.1.1.2. When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.
- 6.3.1.2. **Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.
- 6.3.1.3. **Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a narrative or numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.
- 6.3.1.4. **303(d)-Listed Pollutants.** If an applicable total maximum daily load (TMDL) (see Fact Sheet, section 3.4) program is adopted, this Order may be reopened and effluent limitations for the pollutant(s) that are the subject of the TMDL may be modified or imposed to conform this Order to the TMDL requirements.
- 6.3.1.5. **Regional Monitoring Program.** If the Permittee chooses to participate in a regional monitoring program to assess natural ocean water quality within the Trinidad Head Area of Special Biological Significance (ASBS), this Order may be reopened and effluent limitations and/or monitoring requirements modified to conform to the approved regional monitoring program.

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

- 6.4.1. **Rocky Intertidal Marine Life Survey.** At least once during the five-year term of this Order, in accordance with section 9.1. of the MRP, a quantitative survey of rocky intertidal marine life shall be performed near the point of discharge to the ocean and at a reference site. The survey design must be submitted to the Regional Water Board for approval at least 3 months prior to conducting the survey. The Regional Water Board, in consultation with the State Water Board's Division of Water Quality (DWQ), must approve the survey design prior to implementation. The results of the survey must be completed and submitted to the State and Regional Water Board by **July 31, 2030**. Alternatively, this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.
- 6.4.2. **Bioaccumulation Study.** Once during the five-year term of this Order, in accordance with section 9.2. of the MRP a bioaccumulation study using resident California mussels (*Mytilus*

californianus) shall be conducted to determine the concentrations of metals near the discharge and at a reference site. The Regional Water Board, in consultation with DWQ, must approve the study design prior to implementation. The study must be completed, and results submitted to the Regional Water Board by **July 31, 2030**. Based on the study results the Regional Water Board, in consultation with DWQ, may adjust the study design in subsequent permits, or add additional test organisms. Alternatively, this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff.

6.4.3. **Sediment Monitoring Study.** Once annually, in accordance with section 9.3. of the MRP, the Permittee shall monitor the subtidal sediment for the Ocean Plan Table 3 constituents. For sediment toxicity testing, only an acute toxicity test using the amphipod *Eohaustorius estuarius* must be performed. Based on the first-year sample results, the Regional Water Board may determine specific constituents to be tested during the remainder of each permit cycle, except that sediment must be monitored annually for acute toxicity. Alternatively, this requirement may be met by participation in a regional monitoring program approved by the State Water Board staff. The study must be completed, and results submitted to the Regional Water Board by **July 31, 2030**.

6.4.4. **Best Management Practices and Pollution Prevention**

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

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

6.4.4.1.1. A sample result is reported as DNQ and the effluent limitation is less than the RL; or

6.4.4.1.2. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section 10.2.4.

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

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

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

- 6.4.4.2.3. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
- 6.4.4.2.4. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
- 6.4.4.2.5. An annual status report that shall be submitted as part of the Annual Facility Report due **March 1** to the Regional Water Board and shall include:
 - 6.4.4.2.5.1. All PMP monitoring results for the previous year;
 - 6.4.4.2.5.2. A list of potential sources of the reportable priority pollutant(s);
 - 6.4.4.2.5.3. A summary of all actions undertaken pursuant to the control strategy; and
 - 6.4.4.2.5.4. A description of actions to be taken in the following year.

6.4.5. Construction, Operation, and Maintenance Specifications

- 6.4.5.1. **Proper Operation and Maintenance.** This Order (Attachment D, Standard Provision 1.4) requires that the Permittee at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures.
 - 6.4.5.1.1. Waste effluents shall be discharged in a manner which provides sufficient initial dilution to minimize the concentrations of substances not removed in the treatment.
- 6.4.5.2. **Operation and Maintenance Manual.** The Permittee shall maintain an updated maintenance (O&M) Manual for the operational components of the Facility. The Permittee shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The Permittee shall operate and maintain the Facility in accordance with the most recently updated O&M Manual. The O&M Manual shall be readily available to operating personnel onsite and for review by state or federal inspectors. The O&M Manual shall include the following:
 - 6.4.5.2.1. Description of the Facility's organizational structure showing the number of employees, duties and qualifications, and facility attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the Facility so as to achieve the required level of treatment at all times.
 - 6.4.5.2.2. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
 - 6.4.5.2.3. Description of laboratory and quality assurance procedures.

- 6.4.5.2.4. Process and equipment inspection and maintenance schedules.
- 6.4.5.2.5. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Permittee will be able to comply with requirements of this Order.
- 6.4.5.2.6. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.
- 6.4.5.3. **Notification of Construction Activity.** The Permittee shall notify the Regional Water Board 180 days prior to any construction activity that could result in any new or altered discharge or habitat modification in the Trinidad Head ASBS. In accordance with Section III.E.4.b of the Ocean Plan, the Permittee must receive approval from and comply with any conditions regarding such a discharge that are imposed by the Regional Water Board, prior to performing any significant modification, re-building or renovation of the facilities within the ASBS.
- 6.4.6. **Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable**
- 6.4.7. **Other Special Provisions**
- 6.4.7.1. **Storm Water**
- For the control of storm water discharges from the Facility, if required, the Permittee shall seek separate authorization to discharge under the requirements of the State Water Board’s Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (or subsequent renewed versions of the NPDES General Permit CAS000001), which is not incorporated by reference in this Order.
- BMPs to control the run-on of storm water to the Facility site shall be maintained and upgraded as necessary. The Permittee shall describe the effectiveness of these storm water BMPs, as well as activities to maintain and upgrade these BMPs during the previous year, in its annual report to the Regional Water Board.
- 6.4.7.2. **Program for Prevention of Biological Pollutants.** The Permittee submitted a Program for Prevention of Biological Pollutants (PPBP) to the Regional Water Board on September 30, 2013. The Permittee shall review the PPBP in consultation with California Department of Fish and Wildlife (CDFW), Marine Fisheries Branch and continue to implement the program in consultation with CDFW by **July 1, 2029**. Any non-native species found in the Trinidad Head ASBS must be reported to the State Water Board, Regional Water Board, and CDFW.
- 6.4.7.3. **Compliance Schedules**
- 6.4.7.3.1. **Compliance Schedule – Not Applicable**

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

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 Effluent Limitations

- 7.1.1. **Single Constituent Effluent Limitations.** The Permittee is out of compliance with the effluent limitation if the concentration of the pollutant (see section 7.3.) in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
- 7.1.2. **Effluent Limitations Expressed as a Sum of Several Constituents.** The Permittee is out of compliance with an effluent limitation which 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 non-detect (ND) or detected but not quantified (DNQ).

7.2. Multiple Sample Data

When determining compliance with an AMEL for priority pollutants, and more than one sample result is available, the Permittee shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure.

- 7.2.1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- 7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two middle values 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 and a value of zero shall be used for the ND or DNQ value in the median calculation for compliance purposes only. Using a value of zero for DNQ or ND samples does not apply when performing reasonable potential or antidegradation analyses.

7.3. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by section 7.2. above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Permittee will be considered out of compliance for

each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee will be considered out of compliance for that calendar month. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar month, the Permittee shall calculate the median of all sample results within that month for compliance determination with the AMEL as described in section 7.2., above.

7.4. Average Weekly Effluent Limitation (AWEL)

If the average (or when applicable, the median determined by subsection 7.2. above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Permittee will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Permittee will be considered out of compliance for that calendar week. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar week, the Permittee shall calculate the median of all sample results within that week for compliance determination with the AWEL as described in section 7.2, above.

7.5. Maximum Daily Effluent Limitation (MDEL)

If a daily discharge (or when applicable, the median determined by subsection 7.2., above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Permittee will be considered out of compliance for that parameter for that 1 day only within the reporting period.

7.6. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total sum of time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

7.7. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Permittee will be considered out of compliance for that parameter for

that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total sum of time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

7.8. Bacteriological Limitations

7.8.1. **Single Sample Maximum.** All single sample results are compared to single sample maximum limitations. Single sample results are only compared to the median, geometric mean, six-week rolling geometric mean, and statistical threshold value when sampling is required at the frequency required to properly assess compliance, as further stated in 2. through 5, below. Compliance with a single annual sample is determined in comparison to single sample maximum limitations only. If single sample maximums are routinely exceeded, the Regional Water Board may require additional sampling to assess whether the Permittee's discharge is the source of the exceedance in the receiving water.

7.8.2. **Median.** The median is the central tendency concentration of the pollutant. The data set shall be ranked from low to high, ranking the ND concentrations lowest, followed by quantified values. The median value is determined based on the number of data points in the set. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, the median is the average of the two middle values, unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two middle data points. DNQ is lower than a detected value, and ND is lower than DNQ.

7.8.3. **Six-week Rolling Geometric Mean.** The rolling geometric mean shall be calculated using at least 5 sample results over a 6-week period from a site using the following formula:

$$\text{Geometric Mean} = \sqrt[n]{(x_1)(x_2)(x_3) \dots (x_n)}$$

where x is the sample value and n is the number of samples taken.

7.8.4. **Statistical Threshold Value.** (1) The data set shall be ranked from low to high, ranking any ND concentrations lowest, followed by quantified values. (2) The number of sample results should then be multiplied by 90 percent then rounded up to the nearest whole number. (3) Count the values in the data set starting from lowest to highest until the number indicated in step (2) is reached. (4) To be compliant with the statistical threshold value in section 4.1.1.2., all sample results less than the point described in step (3) must be less than 100 MPN/100 mL.

7.9. Chronic Toxicity

- 7.9.1. Compliance with the accelerated monitoring and TRE provisions shall constitute compliance with the chronic toxicity requirements, all specified in the MRP (Attachment E, sections 5.1. and 5.2).

7.10. TSS and Settleable Solids Effluent Limitations

- 7.10.1. For TSS and settleable solids in seawater discharges, the determination of changes to “natural water quality” as defined in State Water Board Resolution No. 2011-0049 is determined by statistical comparison of receiving water concentrations prior to and after a filter backwash discharge event. The Permittee shall collect a minimum of three pre-discharge samples at Monitoring Location RSW-001A within 1 hour prior to the discharge event. Within 24 hours following the initiation of the discharge, the Permittee shall collect a minimum of three post-discharge samples at Monitoring Location RSW-001B and analyze each sample for TSS and settleable solids. The Permittee shall conduct a t-test to determine if there is a statistical difference in the means of the two distributions of sampling results at the 95th percent confidence level. If the average TSS or settleable solids concentration in the pre-discharge samples is lower than the post-discharge samples and the difference is statistically significant, then the discharge is out of compliance. If the average pollutant concentration in the pre-discharge sample is higher than in the post-discharge sample or if the difference between the two data sets is not determined to be statistically significant, then the discharge is in compliance.

7.11. Ocean Plan Table 3 Effluent Limitations

- 7.11.1. Ocean Plan section III.C., Implementation Provisions for Table 3 describes how compliance is to be determined with effluent limitations established for Table 3 parameters, and includes the following:
- 7.11.2. Section III.C.4.f. The **six-month median** effluent limitations shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.
- 7.11.3. Section III.C.4.g. The **daily maximum** shall apply to flow weighted 24-hour composite samples.
- 7.11.4. Section III.C.4.h. The **instantaneous maximum** shall apply to grab sample determinations.
- 7.11.5. All discharges from this Facility are intermittent, short-term, low volume discharges. Since discharges are intermittent, the six-month median shall be calculated using zeros for days of no discharge. Monitoring is conducted with grab samples therefore compliance will further be assessed with the instantaneous maximum rather than the maximum daily effluent limitations. If at any time during the term of this permit, composite sampling is required, compliance will be assessed with the maximum daily effluent limitation.

ATTACHMENT A - DEFINITIONS

Acute Toxicity

This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response. Expressed in Toxic Units Acute (TUa)

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

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.

Arithmetic Mean (μ)

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

$$\text{Arithmetic mean } (\mu) = \frac{\sum x}{n}$$

where: $\sum x$ is the sum of the measured ambient water concentrations, and n is the number of samples.

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.

Basin Plan

A Basin Plan is a water quality control plan that is specific to a Regional Water Quality Control Board (Regional Water Board), and serves as regulations that: (1) define and designate beneficial uses of surface and ground waters, (2) establish water quality objectives to protect the beneficial uses, and (3) provide implementation measures.

Bioaccumulative

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

California Integrated Water Quality System (CIWQS)

CIWQS is the State Water Board, statewide electronic reporting database that provides for electronic reporting of mandatory reports that are requirements of State and Regional Water Board-issued waste discharge requirements.

Carcinogenic

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

Chlordane

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

Chronic Toxicity

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

Expressed as Toxic Units Chronic (TU_c)

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

Coefficient of Variation (CV)

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

Daily Discharge

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

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

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

DDT

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

Degrade

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

Detected, but Not Quantified (DNQ)

DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes

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

Dilution Credit

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

Downstream Ocean Waters

Waters downstream with respect to ocean currents.

Dredged Material

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

Effective Concentration (EC)

A point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Kärber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of

variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as wasteload allocation (WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays

Enclosed Bays means 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 the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Endosulfan

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

Estimated Chemical Concentration

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

Geometric Mean (GM).

The geometric mean is a type of mean or average that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geometric mean is defined as the nth root of the product of n numbers. The formula is expressed as:

$$\text{Geometric Mean} = \sqrt[n]{(x_1)(x_2)(x_3) \dots (x_n)}$$

where x is the sample value and n is the number of samples taken.

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.

Inhibition Concentration (IC)

The IC25 is typically calculated as a percentage of effluent. It is the level at which the organisms exhibit 25 percent reduction in biological measurement such as reproduction or growth. It is calculated statistically and used in chronic toxicity testing.

Initial Dilution

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

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

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

Inland Surface Waters

All surface waters of the state that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Kelp Beds

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

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 Permittee 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:

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

where:

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

Mariculture (Marine Community)

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

Material

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

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median

The median is the central tendency concentration of the pollutant. The data set shall be ranked from low to high, ranking any ND concentrations lowest, followed by quantified values. The median value is determined based on the number of data points in the set. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, the median is the average of the two middle values, unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two middle data points. DNQ is lower than a detected value, and ND is lower than DNQ.

Method Detection Limit (MDL)

MDL is 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 C.F.R. part 136, Attachment B.

Minimum Level (ML)

ML is 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.

Mixing Zone

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Most Sensitive Species

The single species selected from an array of test species to be used in a single species laboratory test series to determine toxic effects of effluent or ambient water.

Not Detected (ND)

Sample results which are less than the laboratory's MDL.

No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix III, Table III-1 of the Ocean Plan.

Null Hypothesis

A statement used in statistical testing that has been put forward either because it is believed to be true or because it is to be used as a basis for argument but has not been proved.

Ocean Waters

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

PAHs (polynuclear aromatic hydrocarbons)

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

PCBs (polychlorinated biphenyls)

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

Persistent Pollutants

Substances for which degradation or decomposition in the environment is nonexistent or very slow.

Percent Effect

The value that denotes the difference in response between the test concentration and the control, divided by the mean control response, and multiplied by 100.

Permitting Authority

The State Water Board or a regional water board that issues a permit, waste discharge requirements, water quality certification, or other authorization for the discharge or proposed discharge of waste. To the extent that the action is delegable, the term "Permitting Authority" can include the Executive Officer or Executive Director.

Persistent Pollutants

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

Pollutant Minimization Program (PMP)

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention

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

Reported Minimum Level

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

Reasonable Potential

A designation used for a waste discharge that is projected or calculated to cause or contribute to an excursion above a water quality standard.

Receiving Water

A receiving water is a water of the State that receives a discharge of waste.

Regulatory Management Decision (RMD)

The decision that represents the maximum allowable error rates and thresholds for toxicity and non-toxicity that would result in an acceptable risk to aquatic life.

Replicates

Two or more independent organism exposures of the same treatment (i.e., effluent concentration) within a toxicity test. Replicates are typically conducted with separate test chambers and test organisms, each having the same effluent concentration.

Reporting Level (RL)

The RL is the ML (and its associated analytical method) chosen by the Permittee for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. 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 RL.

Shellfish

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

Significant Difference

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

Six-Month Median Effluent Limitation

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

Species Sensitivity Screening

An analysis to determine the single most sensitive species from an array of test species to be used in a single species laboratory test series.

Standard Deviation (σ)

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

$$\text{Standard Deviation } (\sigma) = \frac{\sum(X-\mu)^2}{(n-1)^{0.5}}$$

where: x is the observed value; μ is the arithmetic mean of the observed values; and n is the number of samples.

State Water Quality Protection Areas (SWQPAs)

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolution Nos. 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)

For the bacteria water quality objective, the statistical threshold value is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population. See page 22 of this Order for further discussion.

TCDD Equivalents

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

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

Toxicity Identification Evaluation (TIE)

Techniques used to identify the unexplained cause(s) of toxic event. A TIE involves selectively removing classes of chemicals through a series of sample manipulations, effectively reducing complex mixtures of chemicals in natural waters to simple components for analysis. Following each manipulation, the toxicity sample is assessed to see whether the toxicant class removed was responsible for the toxicity.

Toxicity Reduction Evaluation (TRE)

TRE is a study conducted in a stepwise 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.)

Toxicity Provisions

Refers to Section III.B and Section IV.B of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

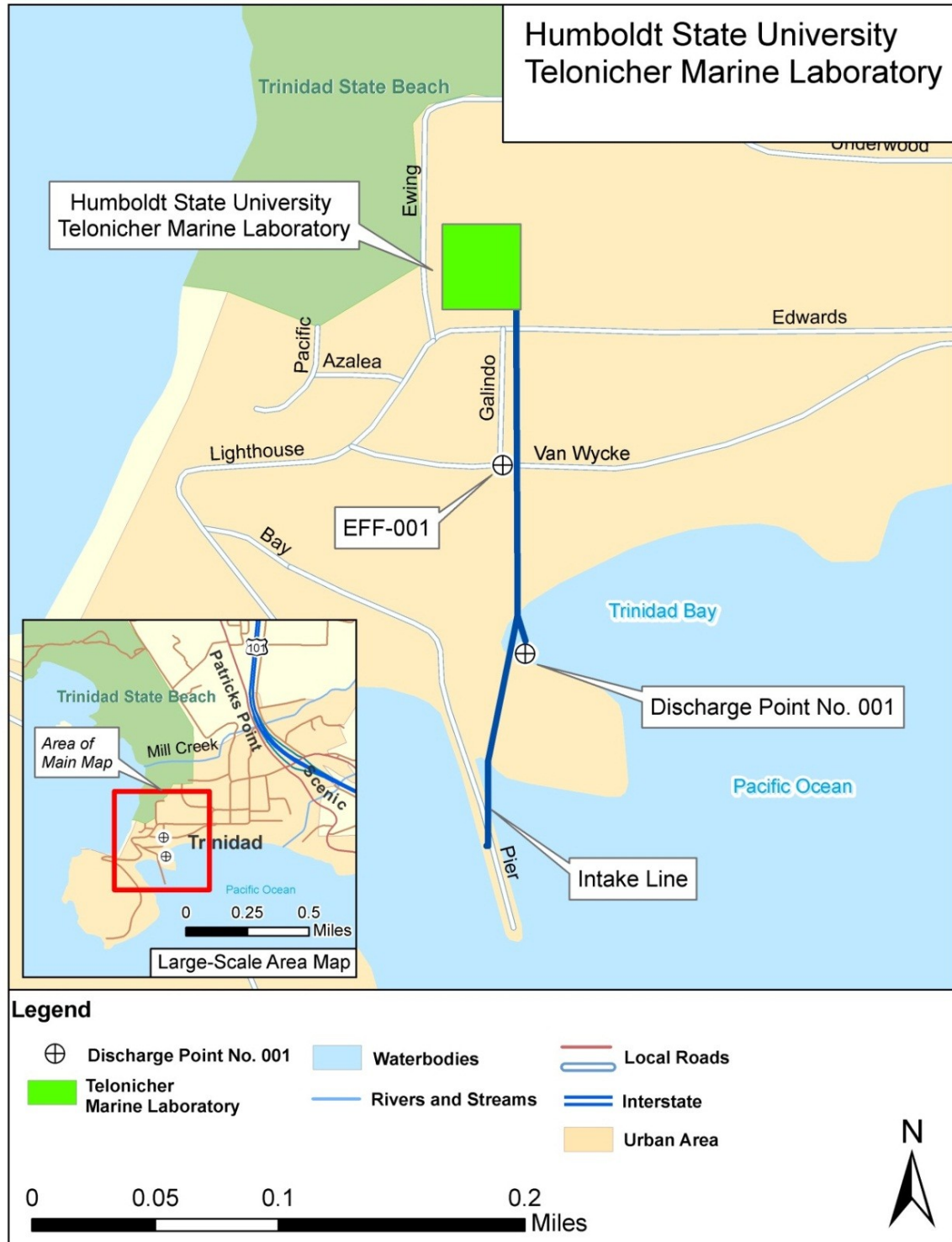
Water Quality Objective

A water quality objective is the amount of pollutant or a parameter level which is established for the reasonable protection of beneficial uses of surface waters and groundwater, and the prevention of nuisance.

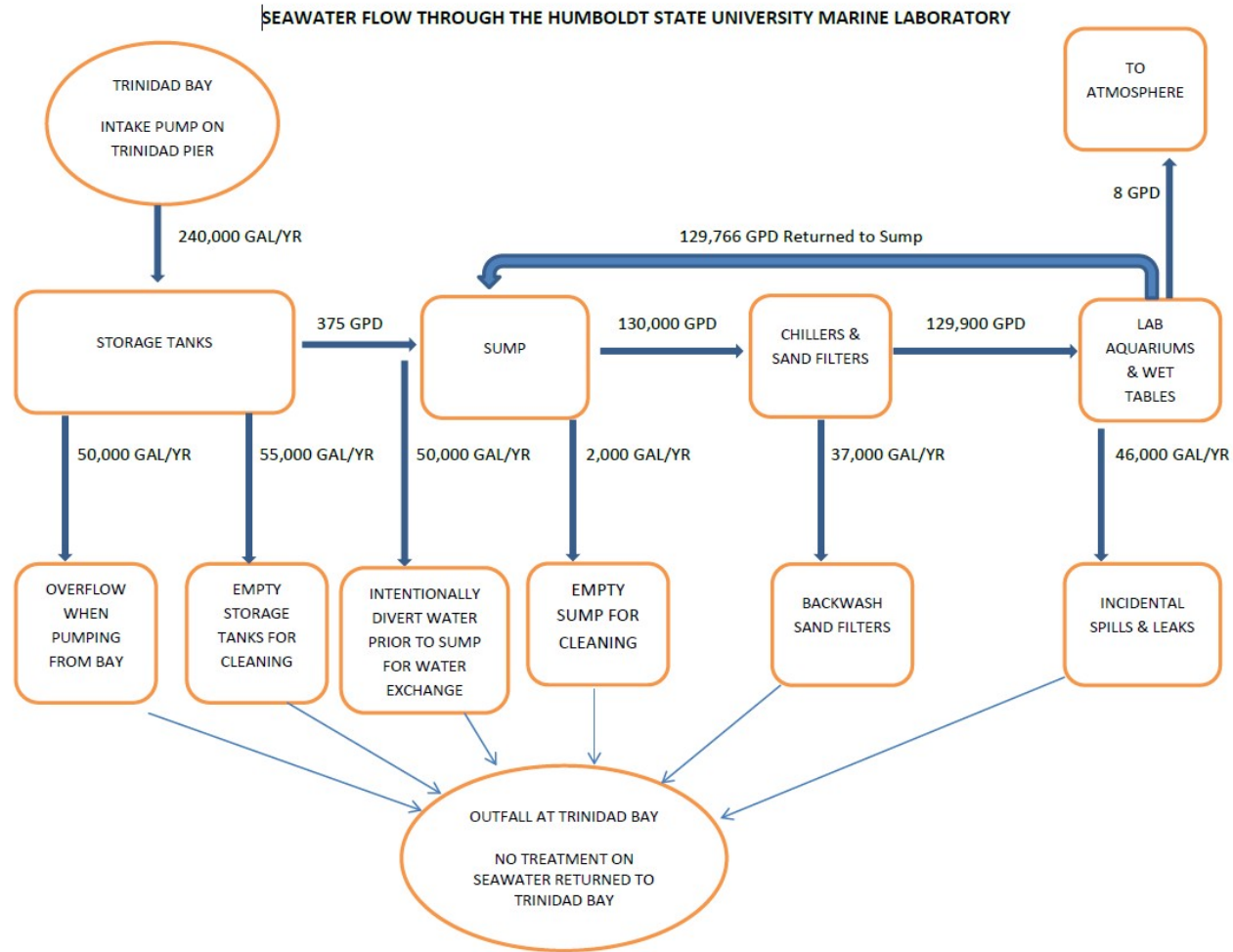
Waste

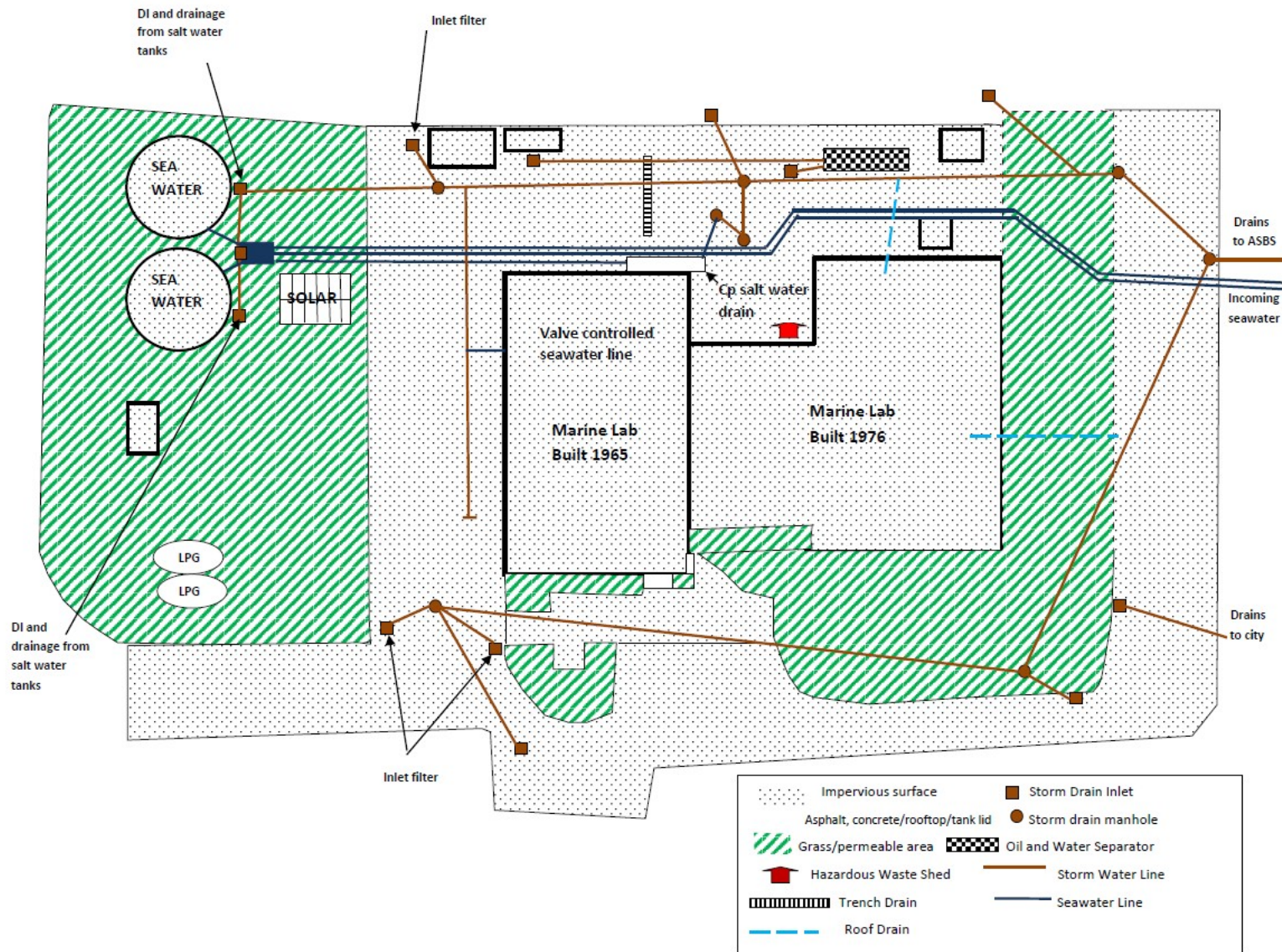
As used in the Ocean Plan, waste includes a discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

ATTACHMENT B - MAP



ATTACHMENT C - FLOW SCHEMATIC





ATTACHMENT D - STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

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

1.2. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Permittee 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 C.F.R. § 122.41(c).)

1.3. Duty to Mitigate

The Permittee 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 C.F.R. § 122.41(d).)

1.4. Proper Operation and Maintenance

The Permittee 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 Permittee to achieve compliance with the conditions of this Order. Proper operation and maintenance also include 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 Permittee only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.5(c).)

1.6. Inspection and Entry

The Permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 118(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

- 1.6.1. Enter upon the Permittee'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. § 118(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 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. § 118(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 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. § 118(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 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. § 118(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 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 C.F.R. § 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 C.F.R. § 122.41(m)(1)(ii).)
- 1.7.2. **Bypass not exceeding limitations.** The Permittee 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 C.F.R. § 122.41(m)(2).)

- 1.7.3. **Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):
- 1.7.3.1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)(B)); and
 - 1.7.3.3. The Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)
- 1.7.4. **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an bypass has the burden of proof.
- 1.7.5. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)
- 1.7.6. **Notice**
- 1.7.6.1. **Anticipated bypass.** If the Permittee 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 Regional Water Board. As of December 21, 2025, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)
 - 1.7.6.2. **Unanticipated bypass.** The Permittee shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 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 Permittee. 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 C.F.R. § 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 C.F.R. § 122.41(n)(2).)
- 1.8.2. **Conditions necessary for a demonstration of upset.** A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):
 - 1.8.2.1. **An upset occurred and that the Permittee can identify the cause(s) of the upset** (40 C.F.R. § 122.41(n)(3)(i));
 - 1.8.2.2. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));
 - 1.8.2.3. The Permittee submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and
 - 1.8.2.4. The Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 C.F.R. § 122.41(n)(3)(iv).)
- 1.8.3. **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 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 Permittee for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

2.2. Duty to Reapply

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

2.3. Transfers

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

3. STANDARD PROVISIONS – MONITORING

- 3.1.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)
- 3.1.2. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:
- 3.1.3. 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
- 3.1.4. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. 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 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. § 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

In the case of sludge use or disposal approved under 40 C.F.R. part 136, monitoring must be conducted according to test procedures in part 503 unless otherwise specified in 40 C.F.R. or other test procedures have been specified in this Order.

4. STANDARD PROVISIONS – RECORDS

4.1. Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Permittee 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 North Coast Regional Water Board Executive Officer at any time. (40 C.F.R. § 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 C.F.R. § 122.41(j)(3)(i));
- 4.2.2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));
- 4.2.3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));
- 4.2.4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));
- 4.2.5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and
- 4.2.6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

- 4.3.1. The name and address of any permit applicant or Permittee (40 C.F.R. § 122.7(b)(1)); and
- 4.3.2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

The Permittee shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA 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 Permittee shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

- 5.2.1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA 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 C.F.R. § 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 U.S. EPA). (40 C.F.R. § 122.22(a)(3).)
- 5.2.3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA 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 C.F.R. § 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 facility 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 C.F.R. § 122.22(b)(2)); and
 - 5.2.3.3. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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 Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R. § 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 C.F.R. § 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 Regional Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)
- 5.3.3. If the Permittee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

- 5.3.4. Calculations for all limitations, which require an averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 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 C.F.R. § 122.41(l)(5).)

5.5. **Twenty-Four Hour Reporting**

- 5.5.1. The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Permittee 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.
- 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 C.F.R. § 122.41(l)(6)(ii)(A).)
- 5.5.2.2. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
- 5.5.3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.6. **Planned Changes**

The Permittee shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 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 C.F.R. § 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 the effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

5.6.3. 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 C.F.R. § 122.41(l)(1)(ii).)

5.7. Anticipated Noncompliance

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

5.8. Other Noncompliance

The Permittee 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.

5.9. Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Permittee shall promptly submit such facts or information. (40 C.F.R. § 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 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA 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 C.F.R. section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 C.F.R. § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

- 6.1. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13350, 13385, 13386, and 13387.

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Non-Municipal Facilities

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

- 7.1.1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):
- 7.1.1.1. 100 micrograms per liter ($\mu\text{g/L}$) (40 C.F.R. § 122.42(a)(1)(i));
 - 7.1.1.2. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));
 - 7.1.1.3. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or
 - 7.1.1.4. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv))
- 7.1.2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):
- 7.1.2.1. 500 micrograms per liter ($\mu\text{g/L}$) (40 C.F.R. § 122.42(a)(2)(i));
 - 7.1.2.2. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));
 - 7.1.2.3. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or
 - 7.1.2.4. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv)).

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

1. GENERAL MONITORING PROVISIONS

1.1. Wastewater Monitoring Provision

1.1.1. Composite samples may be taken by a proportional sampling device or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

1.2. Supplemental Monitoring Provision

1.2.1. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 C.F.R. part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the quarterly and annual discharge monitoring reports.

1.3. Data Quality Assurance Provision

1.3.1. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board) in accordance with the provisions of Water Code section 13176 and must include quality assurance/quality control data with their analytical reports. The Permittee may analyze pollutants with short hold times (e.g., pH, chlorine residual, etc.) with field equipment or its on-site laboratory provided that the Permittee has standard operating procedures (SOPs) that identify quality assurance/quality control procedures to be followed to ensure accurate results.

1.3.2. The Permittee shall keep a manual onsite containing the steps followed in this program and must demonstrate sufficient capability to adequately perform these on-site laboratory and field tests (e.g., qualified and trained employees, properly calibrated and maintained on-site laboratory and field instruments). The program shall conform to U.S. EPA guidelines or other approved procedures.

1.4. Instrumentation and Calibration Provision

1.4.1. All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices

shall be calibrated no less than the manufacturer's recommended intervals or one-year intervals, (whichever comes first) to ensure continued accuracy of the devices. The Permittee shall calibrate continuous analyzers (e.g., chlorine residual, bisulfite residual) against grab samples as frequently as necessary to maintain accurate and reliable operation.

1.5. Minimum Levels (ML) and Reporting Levels (RL).

- 1.5.1. U.S. EPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 C.F.R. 136, Guidelines Establishing Test Procedures for Analysis of Pollutants. All analyses shall be conducted using the lowest practical quantitation limit achievable using U.S. EPA approved methods. For the purposes of the NPDES program, when more than one test procedure is approved under 40 C.F.R., part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).

A U.S. EPA-approved analytical method is sufficiently sensitive where:

- 1.5.2. The ML is at or below both the level of the applicable water quality criterion/objective and the permit limitation for the measured pollutant or pollutant parameter; or
- 1.5.3. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
- 1.5.4. The method has the lowest ML of the U.S. EPA-approved analytical methods where none of the U.S. EPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule (CTR) shall also adhere to guidance and requirements contained in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2005) (SIP). However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs. For instance, U.S. EPA Method 1631E for mercury is not currently listed in SIP Appendix 4, but it is published with an ML of 0.5 ng/L that makes it a sufficiently sensitive analytical method. Similarly, U.S. EPA Method 245.7 for mercury is published with an ML of 5 ng/L.

1.6. Discharge Monitoring Report Quality Assurance (DMR-QA) Study

1.6.1. The Permittee shall participate in the DMR-QA program and ensure that the results of the DMR-QA Study or the most recent Water Pollution Performance Evaluation Study from each laboratory providing testing services for the permit are submitted annually to the State Water Board at qualityassurance@waterboards.ca.gov. For more information on the DMR-QA Program, contact the State DMR-QA Coordinator at the aforementioned email address.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001A ¹	Filter backwash monitoring immediately following the seawater system filters.
001	EFF-001B ^{1,2}	Waste seawater monitoring immediately following the seawater storage tanks or seawater sump. Monitoring is only required if the storage tanks or sump are drained to the seawater outfall during the permit term.
001	EFF-001D ¹	Any commingled discharge of wastewater (i.e. waste seawater and filter backwash) monitoring at the manhole located at the corner of Van Wycke and Galindo Streets, or alternate location on the Telonicher Marine Laboratory property upon submittal of a written request that includes a map identifying the specific monitoring location. ³
--	RSW-001A ²	Receiving water in Trinidad Bay, within the surf zone, and immediately adjacent to Discharge Point 001. This monitoring location designation to be used when reporting pre-seawater discharge receiving water monitoring data.
--	RSW-001B ²	Receiving water in Trinidad Bay, within the surf zone, and immediately adjacent to Discharge Point 001. This monitoring location designation to be used when reporting post-seawater discharge receiving water monitoring data.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	REF-001	The reference station in the ocean near the mouth of Agate Creek, at the point where runoff from a reference watershed enters the ocean in the surf zone, representing background/natural water quality conditions.
--	SED-001	A subtidal sediment monitoring location in Trinidad Bay.

Table Notes

1. Monitoring Locations EFF-001A, EFF-001B, and EFF-001D represent different types of discharges from this Facility (filter backwash, waste seawater (sump water or storage tank draining), and commingled discharges) in order to characterize each type of discharge. When there is a discharge of commingled effluent (waste seawater and filter backwash) the Permittee shall report the discharge as EFF-001D. The Permittee shall use the unique effluent monitoring location name identifiers when reporting data to CIWQS so that the different types of effluent discharges at Discharge Point 001 are distinctly identified in CIWQS.
2. Sample collection following the seawater storage tanks or seawater sump are in two distinct locations. Since the waste seawater is continuously recirculated through the treatment and storage system, these locations are considered the same discharge and a single monitoring point.
3. Monitoring Locations RSW-001A and RSW-001B are the same monitoring location. Unique location names are used to differentiate receiving water monitoring data associated with pre-seawater discharge events from receiving water monitoring data associated with post-seawater discharge events. The Permittee shall use the unique receiving water monitoring location name identifiers when reporting data to CIWQS.

3. INFLUENT MONITORING REQUIREMENTS – NOT APPLICABLE

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Effluent Filter Backwash Monitoring at Monitoring Location EFF-001A

The Permittee shall monitor the effluent filter backwash at Monitoring Location EFF-001A in the dry season during periods of discharge to Trinidad Bay at Discharge Point 001 as follows:

Table E-2. Effluent Monitoring – Monitoring Location EFF-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ₃
Filter Backwash Flow ²	gpd	Meter or Estimate	Each Filter Backwash Event	--
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅) ¹	mg/L	Grab	Annually	Part 136
Total Suspended Solids (TSS)	mg/L	Grab	Annually ⁴	Part 136
Settleable Solids	ml/L	Grab	Annually ⁴	Part 136
Turbidity	NTU	Grab	Annually ⁴	Part 136
pH	s.u.	Grab ²	Annually ⁴	Part 136
Salinity ^{1,5}	s.u.	Grab	Annually	Part 136
Temperature ¹	°C	Grab	Annually	Part 136
Arsenic, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Copper, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Lead, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Mercury, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Nickel, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Zinc, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Cadmium	µg/L	Grab	Annually ⁴	Part 136 ⁶
Chromium, Total Recoverable	µg/L	Grab	Annually ⁴	Part 136 ⁶
Ammonia Nitrogen, Total (as N)	µg/L	Grab	Annually	Part 136 ⁷
Bis(2-Ethylhexyl) Phthalate	µg/L	Grab	Annually ⁴	Part 136
Polynuclear Aromatic Hydrocarbons (PAHs) ⁸	µg/L	Grab	Annually ⁴	Part 136
Ocean Plan Table 3 Constituents for Marine Aquatic Life ^{1,9,10}	µg/L	Grab	Annually ¹¹	Part 136 ⁷
Chronic Toxicity	TUc, Passed/Triggered ¹²	Grab	Annually	See Section 5 below

Table Notes

1. In accordance with State Water Board Resolution No. 2011-0049, an effluent sample collected from the waste seawater discharge during a filter backwash event in the dry season, must be analyzed for Ocean Plan Table 2 constituents (except oil and grease), BOD₅, salinity, temperature and Ocean Plan Table 3 constituents for marine life (except cyanide, phenolic compounds, endosulfan, endrin, and HCH). Monitoring shall coincide with reference monitoring at Monitoring Location REF-001.
2. Flow measurement is required on each day that a discharge occurs.
3. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration).
4. Accelerated Monitoring (annual monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall sample the next two operationally required discharge events that occur following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
5. Salinity may be measured and reported as electrical conductivity in $\mu\text{mhos/cm}$, as salinity in salinity units, or as salinity in parts per thousand.
6. In accordance with State Water Board Resolution No. 2011-0049, metals shall be analyzed by the approved analytical method with the lowest minimum detection limits (currently ICPMS) as described in Appendix II of the Ocean Plan (2019).
7. In accordance with State Water Board Resolution No. 2011-0049, ammonia shall be measured at a detection limit of 10 $\mu\text{g/L}$.
8. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.
9. Monitoring is required for all Ocean Plan Table 3 metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, antimony, thallium, beryllium), ammonia, bis(2-ethylhexyl) phthalate, PAHs, and PCBs. Some of the parameters identified in this Table Note are also identified separately in this table because this Order includes effluent limitations for the separately listed parameters in order to identify the accelerated monitoring requirements (Table Note 4). The Permittee is not required to duplicate monitoring for these pollutants. Monitoring for other Ocean Plan Table 3 pollutants is waived unless such monitoring is requested in writing by the Regional Water Board Executive Officer.
10. The Permittee may, at their option monitor for total chromium instead of hexavalent chromium.
11. In accordance with State Water Board Resolution No. 2011-0049, based on the results from the first year, Regional Water Board staff will determine the Table 3 constituents to be tested annually during the remainder of the permit cycle, except

Table Notes

that ammonia nitrogen and chronic toxicity (for at least one consistent invertebrate or algal species) must be tested at least annually for the waste seawater effluent.

12. The Permittee shall include reporting regarding compliance with the narrative toxicity objective by reporting whether the chronic toxicity test “passed” or “triggered” in relation to the chronic toxicity trigger of 1.0 TUc (where TUc =100/NOEC) as a daily maximum. For narrative chronic toxicity reporting, “Passed” shall be reported when chronic toxicity effluent results do not trigger accelerated testing (e.g., a single sample result of ≤1.0 TUc. “Triggered” shall be reported when chronic toxicity effluent e.g., a single sample result of ≤1.0 TUc. “Triggered” shall be reported when chronic toxicity effluent results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUc for a single sample.

4.1.1. If there is no discharge of filter backwash water, monitoring reports shall certify that there was no discharge during the monitoring period.

4.2. Effluent Monitoring for Commingled Seawater at Monitoring Location EFF-001D and Discharges from Seawater Sump or Storage Tanks at Monitoring Locations EFF-001B

4.2.1. The Permittee shall monitor any commingled discharges (combinations of waste seawater and filter backwash discharge) at EFF-001D and any individual discharge of waste seawater from the seawater sump or storage tanks at EFF-001B prior to contact with the receiving water during periods of discharge to Trinidad Bay at Discharge Point 001 as follows:

Table E-3. Effluent Monitoring – Commingled Seawater (Monitoring Location EFF-001D)¹ and Discharges from Seawater Sump or Storage Tanks (EFF-001B)⁴

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ⁵
Seawater Discharge System Flow	gpd	Meter or Calculated	Each Discharge Event ²	--
Total Monthly Seawater Volume	gallons	Meter or Calculated	Monthly ³	--
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	Grab	Semiannually	Part 136
Total Suspended Solids (TSS)	mg/L	Grab	Quarterly ^{6,7}	Part 136

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ⁵
Settleable Solids	ml/L	Grab	Quarterly ^{6,7}	Part 136
Turbidity	NTU	Grab	Quarterly	Part 136
pH	s.u.	Grab	Quarterly ⁷	Part 136
Salinity ⁸	s.u.	Grab	Quarterly	Part 136
Temperature	°C	Grab	Quarterly	Part 136
Nitrate (as N)	mg/L	Grab	Quarterly	Part 136
Total Coliform Bacteria	MPN/100 mL	Grab	Semiannually	Part 136
<i>Enterococcus</i>	MPN or CFU/100 mL ⁸	Grab	Semiannually	Part 136
Fecal Coliform Bacteria	MPN/100 mL	Grab	Semiannually	Part 136
Dissolved Oxygen	mg/L	Grab	Semiannually	Part 136
Arsenic, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Copper, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Lead, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Mercury, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Nickel, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Zinc, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Cadmium	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Chromium, Total Recoverable	µg/L	Grab	Semiannually ^{7,9}	Part 136 ¹⁰
Bis(2-Ethylhexyl) Phthalate	µg/L	Grab	Semiannually ^{7,9}	Part 136
Polynuclear Aromatic Hydrocarbons (PAHs) ¹¹	µg/L	Grab	Semiannually ^{7,9}	Part 136
Ocean Plan Table 3 Constituents for Marine Aquatic Life ^{12,13}	µg/L	Grab	Twice per Permit Term ⁹	Part 136 ¹⁰
Chronic Toxicity	TUc, Passed/Triggered ¹⁴	Grab	Twice per Permit Term	See Section 5 below

Table Notes

1. Listed in this table are the minimum monitoring requirements for any discharge through the seawater discharge system. If monitoring is conducted on effluent containing filter backwash and is conducted during the dry season, then results may be used to satisfy the filter backwash requirements for Monitoring Location EFF-001B in Table E-3.
2. Flow measurement is required on each day that a discharge occurs.
3. In accordance with State Water Board Resolution No. 2011-0049, the total flow volume discharged from the seawater discharge system must be measured monthly and reported quarterly to the Regional Water Board.
4. If during the term of this permit, the Permittee drains the seawater sump or storage tanks, the Permittee shall conduct analyses on at least one discharge sample containing seawater sump water and at least one discharge sample containing seawater tank water. Seawater sump and storage tank discharges shall be identified as EFF-001B.
5. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration).
6. Monitoring for TSS and settleable solids shall coincide with pre- and post-seawater discharge monitoring at Monitoring Location RSW-001A and RSW-001B in Trinidad Bay.
7. Accelerated Monitoring (quarterly and semiannual monitoring frequency). If a test result exceeds an effluent limitation the Permittee shall sample the next two operationally required discharge events that occur following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
8. Salinity may be measured and reported as electrical conductivity in $\mu\text{mhos/cm}$, as salinity in salinity units, or as salinity in parts per thousand.
9. The Regional Water Board may, at its discretion, and after receiving and analyzing the required water quality monitoring data, at the request of the Permittee choose to reduce and/or eliminate certain monitoring requirements for constituents that routinely are found in concentrations below Ocean Plan objectives.
10. In accordance with State Water Board Resolution No. 2011-0049, metals shall be analyzed by the approved analytical method with the lowest minimum detection limits (currently Inductively Couple Plasma Mass Spectrometry [ICPMS]) as described in Appendix II of the Ocean Plan (2019).
11. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.

Table Notes

12. Monitoring is required for all Ocean Plan Table 3 metals (arsenic, cadmium, chromium, copper lead, mercury, nickel, selenium, silver, zinc, antimony, thallium, beryllium), ammonia, bis(2-ethylhexyl) phthalate, PAHs, and PCBs. Some of the parameters identified in this Table Note are also identified separately in this table because this Order includes effluent limitations for the separately listed parameters in order to identify the accelerated monitoring requirements (Table Note 8). The Permittee is not required to duplicate monitoring for these pollutants. Monitoring for other Ocean Plan Table 3 pollutants is waived unless such monitoring is requested in writing by the Regional Water Board Executive Officer.
13. The Permittee may, at their option, monitor for total chromium instead of hexavalent chromium.
14. The Permittee shall include reporting regarding compliance with the narrative toxicity objective in by reporting whether the chronic toxicity test “passed” or “triggered” in relation to the chronic toxicity trigger of 1.0 TUc (where TUc =100/NOEC) as a daily maximum. For narrative chronic toxicity reporting, “Passed” shall be reported when chronic toxicity effluent results do not trigger accelerated testing (e.g., a single sample result of ≤ 1.0 TUc. “Triggered” shall be reported when chronic toxicity effluent e.g., a single sample result of ≤ 1.0 TUc. “Triggered” shall be reported when chronic toxicity effluent results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUc for a single sample.

- 4.2.2. If there are no commingled sampling events or discharges from the seawater sump or storage tanks during the monitoring period, the monitoring report shall certify “No commingled discharges occurred during this period.” and/or “No discharges from the seawater sump or storage tanks during this period.”

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.1. Chronic Toxicity Testing

The Permittee shall conduct chronic toxicity testing in accordance with the following chronic toxicity testing requirements:

- 5.1.1. **Test Frequency.** The Permittee shall conduct chronic WET testing in accordance with the schedule established by this MRP while discharging at Discharge Point 001 as summarized in Tables E-2 and E-3 above.
- 5.1.2. **Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC for this discharge is 100 percent effluent.
- 5.1.3. **Sample Volume and Holding Time.** The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection.

For toxicity tests requiring renewals (*Atherinops affinis*), a minimum of three samples shall be collected. The lapsed time (holding time) from sample collection to first use of each sample must not exceed 36 hours.

- 5.1.4. **Chronic Marine Test Species and Test Methods.** If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Permittee shall conduct the following chronic toxicity tests on effluent samples at the IWC for the discharge in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine prepared from natural seawater shall be used to increase sample salinity. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.
- 5.1.4.1. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).
- 5.1.4.2. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, and the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0), or a static non-renewal toxicity test with the mussel, *Mytilus spp* (Embryo-Larval Shell Development Test Method).
- 5.1.4.3. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).
- 5.1.5. **Species Sensitivity Screening.** Species sensitivity screening shall be conducted during this Order's first required sample collection. The Permittee shall collect a single effluent sample and concurrently conduct chronic toxicity testing using the fish, an invertebrate, and the alga species identified in section 5.1.4, above. This sample shall also be analyzed for the parameters required for the discharge. The permittee will determine which species exhibits the highest sensitivity at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the remainder of the permit term
- 5.1.6. **Quality Assurance and Additional Requirements.** Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.
- 5.1.6.1. Because the permit requires sublethal hypothesis testing endpoints from methods 1006 and 1007.0 in the test methods manual titled *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, 2002), with-in test variability must be reviewed for acceptability and variability criteria (upper and lower PMSD bounds) must be applied, as directed under section 10.2.8 – *Test Variability* of the test methods manual. Under section 10.2.8, the calculated

PMSD for both reference toxicant test and effluent toxicity test results must be compared with the upper and lower PMSD bounds variability criteria specified in Table 6 – *Variability Criteria (Upper and Lower PMSD Bounds) for Sublethal Hypothesis Testing Endpoints Submitted Under NPDES Permits*, following the review criteria in paragraphs 10.2.8.2.4.1 through 10.2.8.2.4.5 of the test methods manual. Based on this review, only accepted effluent toxicity test results shall be reported.

- 5.1.6.2. If the effluent toxicity test does not meet the minimum effluent or reference toxicant test acceptability criteria (TAC) specified in the referenced test method, then the Permittee shall re-sample and re-test within 14 days.
- 5.1.6.3. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.
- 5.1.6.4. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported.
- 5.1.6.5. The Permittee shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the MRP and the rationale is explained in the Fact Sheet (Attachment F).
- 5.1.6.6. **Ammonia Removal.** Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Permittee must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not by other toxicants before the Executive Officer would allow for control of pH in the test.
- 5.1.6.7. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
- 5.1.6.8. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
- 5.1.6.9. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
- 5.1.6.10. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent.

Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

- 5.1.6.11. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent.
- 5.1.7. **Notification.** The Permittee shall notify the Regional Water Board verbally within 72 hours and in writing within 14 days after the receipt of a result of "Fail" during routine or accelerated monitoring.
- 5.1.8. **Accelerated Monitoring Requirements.** Accelerated monitoring for chronic toxicity is triggered when a chronic toxicity test, exceeds the chronic toxicity monitoring trigger of 1.0 TUc. Within 24 hours of the time the Permittee trigger's accelerated monitoring requirements, the Permittee shall implement an accelerated monitoring schedule consisting of four toxicity tests—consisting of 5-effluent concentrations (including the discharge IWC) and a control—conducted during the next four operationally required discharge events. If each of the accelerated toxicity tests results is <1.0 TUc the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests result is 1.0 TUc or higher the Permittee shall immediately implement the TRE Process conditions set forth in section 5.2, below.
- 5.1.9. **Reporting**
- 5.1.9.1. **Routine Reporting.** Chronic toxicity monitoring results for reference site monitoring at REF 001 shall be submitted with the semiannual self-monitoring report (SMR) for the half of the year in which chronic toxicity monitoring was performed. Chronic toxicity monitoring results for filter backwash at Monitoring Location EFF 001A and receiving water monitoring at RSW 001B shall be submitted with the annual SMR each year. Chronic toxicity monitoring results for waste seawater (seawater sump and storage tank discharges) at EFF-001B and commingled effluent at EFF-001D shall be submitted with the annual SMR due March 1 following the year that monitoring is completed and no later than **July 31, 2030**. Routine reporting shall include the following in order to demonstrate compliance with permit requirements:
- 5.1.9.1.1. WET reports shall include the contracting laboratory's complete report provided to the Permittee and shall be consistent with the appropriate "Report Preparation and Test Review" sections of the methods manual and this MRP. The WET test reports shall contain a narrative report that includes details about WET test procedures and results, including the following:
- 5.1.9.1.2. Receipt and handling of the effluent sample that includes a tabular summary of initial water quality characteristics (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia);

- 5.1.9.1.3. The source and make-up of the contracting laboratory's control/diluent water used for the test;
- 5.1.9.1.4. Any manipulations done to contracting laboratory's control/diluent and effluent such as filtration, nutrient addition, etc.;
- 5.1.9.1.5. Tabular summary of test results for control water and each effluent dilution and statistics summary to include calculation of the NOEC, TUc, and IC25;
- 5.1.9.1.6. Identification of any anomalies or nuances in the test procedures or results;
 - 5.1.9.1.6.1. WET test results shall include, at a minimum, for each test:
 - 5.1.9.1.6.2. Sample date(s);
 - 5.1.9.1.6.3. Test initiation date;
 - 5.1.9.1.6.4. Test species;
- 5.1.9.1.7. "Percent Effect" (or Effect, in %) = ((Control mean response – IWC mean response) ÷ Control mean response) x 100
- 5.1.9.1.8. End point values for each dilution (e.g., number of young, growth rate, percent survival);
- 5.1.9.1.9. NOEC value(s) in percent effluent;
- 5.1.9.1.10. IC15, IC25, IC40, and IC50 values (or EC15, EC25...etc.) in percent effluent;
- 5.1.9.1.11. TUc values (100/NOEC);
- 5.1.9.1.12. Mean percent mortality (±s.d.) after 96 hours in 100 percent effluent (if applicable);
- 5.1.9.1.13. NOEC and LOEC values for reference toxicant test(s);
- 5.1.9.1.14. IC50 or EC50 value(s) for reference toxicant test(s);
- 5.1.9.1.15. Available water quality measurements for each test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, ammonia);
- 5.1.9.1.16. Statistical methods used to calculate endpoints;
- 5.1.9.1.17. The statistical program (CETIS, etc.) output results, which includes the calculation of percent minimum significant difference (PMSD); and
- 5.1.9.1.18. Results of applicable reference toxicant data with the statistical output page identifying the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD and dates tested; the reference toxicant control

charts for each endpoint, to include summaries of reference toxicant tests performed by the contracting laboratory; and any information on deviations from standard test procedures or problems encountered in completing the test and how the problems were resolved.

- 5.1.9.2. **TRE/TIE Results.** The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. TRE/TIE results shall be submitted to the Regional Water Board within 60 days of completion.

5.2. Toxicity Reduction Evaluation (TRE) Process

- 5.2.1. **TRE Work Plan.** The Permittee submitted a TRE Work Plan to the Regional Water Board on July 1, 2020. By **November 1, 2026**, the Permittee shall review its TRE Work Plan for consistency with permit requirements and the Permittee's procedures and updated as necessary in order to remain current and applicable to the discharge and requirements of this Order. The Permittee shall notify the Regional Water Board of this review and shall submit a revised TRE Work Plan if that was the outcome of the review.

The Permittee shall notify the Regional Water Board of this review and submit any revisions of the TRE Work Plan within 90 days of the notification, to be ready to respond to toxicity events. The TRE Work Plan shall describe the steps the Permittee intends to follow if toxicity is detected, and should include at least the following items:

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

- 5.2.2. **Preparation and Implementation of a Detailed TRE Work Plan.** If one of the accelerated toxicity tests described in section 5.1.8, above, results in >1TUc or "Triggered", the Permittee shall immediately initiate a TRE using EPA manual Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, 1989) and within 30 days of receipt submit the accelerated monitoring result to the Regional Water Board Executive Officer. The Permittee shall also submit a Detailed TRE Work Plan, which shall follow the generic TRE Work Plan revised as appropriate for the toxicity event described in section 5.1.8 of this MRP. The Detailed TRE Work Plan shall include the

following information, and comply with additional conditions set by the Regional Water Board Executive Officer:

- 5.2.2.1. Further actions by the Permittee to investigate, identify, and correct causes of toxicity.
- 5.2.2.2. Actions the Permittee will take to mitigate effects of the discharge and prevent the recurrence of toxicity.
- 5.2.2.3. A schedule for these actions, progress reports, and the final report.
- 5.2.3. **TIE Implementation.** The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test methods and, as guidance, EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
- 5.2.4. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Permittee 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.
- 5.2.5. The Permittee shall conduct routine effluent monitoring for the duration of the TRE process. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
- 5.2.6. The Regional Water Board recognizes that toxicity may be episodic and identification of the causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

This Order does not authorize discharges to land.

7. RECYCLING MONITORING REQUIREMENTS - NOT APPLICABLE

This Order does not authorize discharges of recycled water.

8. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER

8.1. Monitoring Location REF-001

8.1.1. The Permittee shall monitor the reference site at Monitoring Location REF-001, during periods of discharge to Trinidad Bay, as follows:

Table E-4. Receiving Water Monitoring Requirements – Monitoring Location REF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency ¹	Required Analytical Test Method ²
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	Grab	Semiannually	Part 136
Oil and Grease	mg/L	Grab	Semiannually	Part 136
Total Suspended Solids (TSS)	mg/L	Grab	Semiannually	Part 136
Settleable Solids	ml/L	Grab	Semiannually	Part 136
Turbidity	NTU	Grab	Semiannually	Part 136
pH	s.u.	Grab ²	Semiannually	Part 136
Salinity ³	s.u.	Grab	Semiannually	Part 136
Temperature	°C	Grab	Semiannually	Part 136
Ocean Plan Table 3 Constituents for Marine Aquatic Life ^{4,5}	µg/L	Grab	Semiannually	Part 136 ⁶
Total Coliform Bacteria	MPN/100 mL	Grab	Semiannually	Part 136 ⁷
<i>Enterococcus</i>	MPN or CFU/100 mL ⁸	Grab	Semiannually	Part 136 ⁷
Fecal Coliform Bacteria	MPN/100 mL	Grab	Semiannually	Part 136 ⁷
Nitrate (as N)	mg/L	Grab	Semiannually	Part 136
Chronic Toxicity ⁹	TUc Passed/Triggered ¹⁰	Grab	Semiannually	See Section 5 above

Table Notes

1. In accordance with State Water Board Resolution No. 2011-0049, reference samples must be monitored semiannually at the same time as the effluent samples and analyzed for the same constituents as annual waste sea water. Reference samples will be collected at Monitoring Location REF-001 or at a station determined by a regional monitoring program. Samples at the reference station during wet weather may be collected immediately following a storm event, but in no case more than 24 hours after, if sampling conditions are unsafe during the storm.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of *Standard Methods for Examination of Water and Wastewater* (American Public Health Administration).
3. Salinity may be measured and reported as electrical conductivity in $\mu\text{mhos/cm}$, as salinity in salinity units, or as salinity in parts per thousand.
4. Monitoring is required for all Table 3 metals (arsenic, cadmium, chromium, copper lead, mercury, nickel, selenium, silver, zinc, antimony, thallium, beryllium), ammonia, bis(2-ethylhexyl) phthalate, PAHs, and PCBs. Monitoring for other Table 3 pollutants is waived unless such monitoring is requested in writing by the Regional Water Board Executive Officer.
5. The Permittee may, at their option monitor for total chromium instead of hexavalent chromium.
6. In accordance with State Water Board Resolution No. 2011-0049, metals shall be analyzed by the approved analytical method with the lowest minimum detection limits (currently ICPMS) as described in Appendix II of the Ocean Plan (2019).
7. Test methods used for coliforms (total and fecal) and *Enterococcus* shall be those presented in Table 1A of 40 C.F.R. Part 136, unless alternate methods have been approved in advance by U.S. EPA pursuant to 40 C.F.R. Part 136.
8. MPN and CFU are comparable units. The Permittee may use any enterococci method specified in 40 CFR 136 for compliance monitoring.
9. Chronic toxicity monitoring is required at REF-001 (post-storm) only.
10. The Permittee shall include reporting regarding compliance with the narrative toxicity objective by reporting whether the chronic toxicity test “passed” or “triggered” in relation to the chronic toxicity trigger of 1.0 TUC (where TUC = 100/NOEC) as a daily maximum. For narrative chronic toxicity reporting, “Passed” shall be reported when chronic toxicity results do not trigger accelerated testing (e.g., a single sample result of ≤ 1.0 TUC. “Triggered” shall be reported when chronic toxicity effluent e.g., a single sample result of ≤ 1.0 TUC. “Triggered” shall be reported when chronic toxicity effluent results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUC for a single sample.

8.1.2. Alternatively, in accordance with State Water Board Resolution No. 2011-0049, monitoring requirements at Monitoring Location REF-001 may be met by participation in a regional monitoring program approved by the State Water Board.

8.2. Monitoring Location RSW-001A and RSW-001B

8.2.1. The Permittee shall conduct pre- and post-storm monitoring within Trinidad Bay at Monitoring Locations RSW-001A and RSW-001B as follows:

Table E-5. Receiving Water Monitoring Requirements – Monitoring Location RSW-001A and RSW-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ¹
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	Grab	Annually	Part 136
Oil and Grease	mg/L	Grab	Annually	Part 136
Total Suspended Solids (TSS)	mg/L	Grab	Annually	Part 136
Settleable Solids	ml/L	Grab	Annually	Part 136
Turbidity	NTU	Grab	Annually	Part 136
pH	s.u.	Grab	Annually	Part 136
Salinity ²	s.u.	Grab	Annually	Part 136
Temperature	°C	Grab	Annually	Part 136
Ocean Plan Table 3 Constituents for Marine Aquatic Life ^{3,4}	µg/L	Grab	Annually	Part 136 ⁵
Total Coliform Bacteria	MPN/100 mL	Grab	Annually	Part 136 ⁶
<i>Enterococcus</i>	MPN or CFU/100 mL ⁷	Grab	Annually	Part 136 ⁶
Fecal Coliform Bacteria	MPN/100 mL	Grab	Annually	Part 136 ⁶
Nitrate (as N)	mg/L	Grab	Annually	Part 136

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ¹
Chronic Toxicity ⁸	TUc Passed/ Triggered ⁹	Grab	Annually	See Section 5 above

Table Notes

1. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).
2. Salinity may be measured and reported as electrical conductivity in $\mu\text{mhos/cm}$, as salinity in salinity units, or as salinity in parts per thousand.
3. Monitoring is required for all Table 3 metals (arsenic, cadmium, chromium, copper lead, mercury, nickel, selenium, silver, zinc, antimony, thallium, beryllium), ammonia, bis(2-ethylhexyl) phthalate, PAHs, and PCBs. Monitoring for other Table 3 pollutants is waived unless such monitoring is requested in writing by the Regional Water Board Executive Officer.
4. The Permittee may, at their option monitor for total chromium instead of hexavalent chromium.
5. In accordance with State Water Board Resolution No. 2011-0049, metals shall be analyzed by the approved analytical method with the lowest minimum detection limits (currently ICPMS) as described in Appendix II of the Ocean Plan (2019).
6. Test methods used for coliforms (total and fecal) and Enterococcus shall be those presented in Table 1A of 40 C.F.R. Part 136, unless alternate methods have been approved in advance by U.S. EPA pursuant to 40 C.F.R. Part 136.
7. MPN and CFU are comparable units. The Permittee may use any enterococci method specified in 40 CFR 136 for compliance monitoring.
8. Chronic toxicity monitoring is required at RSW-001B (post-storm) only.
9. The Permittee shall include reporting regarding compliance with the narrative toxicity objective in by reporting whether the chronic toxicity test “passed” or “triggered” in relation to the chronic toxicity trigger of 1.0 TUc (where TUc =100/NOEC) as a daily maximum. For narrative chronic toxicity reporting, “Passed” shall be reported when chronic toxicity results do not trigger accelerated testing (e.g., a single sample result of ≤ 1.0 TUc. “Triggered” shall be reported when chronic toxicity effluent e.g., a single sample result of ≤ 1.0 TUc. “Triggered” shall be reported when chronic toxicity results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUc for a single sample.

8.2.2. The Permittee shall conduct pre- and post-seawater discharge monitoring within Trinidad Bay at Monitoring Locations RSW-001A and RSW-001B as follows:

Table E-6. Pre- and Post-Seawater Discharge Receiving Water Monitoring – Monitoring Locations RSW-001A and RSW-001B¹

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method ¹
Total Suspended Solids (TSS)	mg/L	Grab	Quarterly	Part 136 ²
Settleable Solids	ml/L	Grab	Quarterly	Part 136 ²

Table Notes

1. The Permittee shall collect a minimum of three pre-seawater discharge samples at Monitoring Location RSW-001A within 1 hour prior to the seawater discharge event. Within 24 hours following the initiation of the discharge, the Permittee shall collect a minimum of three post-seawater discharge samples at Monitoring Location RSW-001B.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).

8.2.3. Alternatively, in accordance with State Water Board Resolution No. 2011-0049, monitoring requirements at Monitoring Locations RSW-001A and RSW-001B may be met by participation in a regional monitoring program approved by the State Water Board.

8.3. Groundwater Monitoring – Not Required

This Order does not require groundwater monitoring.

9. OTHER MONITORING REQUIREMENTS

9.1. Rocky Intertidal Marine Life Survey

The Permittee shall conduct a quantitative survey of rocky intertidal marine life in accordance with section 6.4.1. of the Order, at least once during the five-year term of this Order. The results of the survey must be completed and submitted to the State and Regional Water Board by **July 31, 2030**.

9.2. Bioaccumulation Study

The Permittee shall conduct a bioaccumulation study, in accordance with section 6.4.2. of the Order, at least once during the five-year term of this Order. The study must be completed, and results submitted to the Regional Water Board by **July 31, 2030**.

9.3. Sediment Monitoring and Study

The Permittee shall monitor subtidal sediment, in accordance with section 6.4.3. of the Order, at Monitoring Location SED-001 in Trinidad Bay according to the following schedule.

Table E-7. Sediment Monitoring Requirements – Monitoring Location SED-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Ocean Plan Table 3 Constituents (Except Chronic Toxicity)	µg/L	Grab	Annually ¹	2
Acute Toxicity	Tua, Passed/ Triggered	Grab	Annually	3

Table Notes

1. In accordance with State Water Board Resolution No. 2011-0049, subtidal sediment in Trinidad Bay shall be monitored annually. Based on the results of the first year of sediment monitoring, the Regional Water Board will determine which specific Table 3 Constituents shall be monitored on an annual basis thereafter.
2. All samples will be tested in accordance with U.S. EPA or American Society for Testing and Materials (ASTM) methodologies where such methods exist. Where no U.S. EPA or ASTM method exists, the State Water Board or Regional Water Board (Collectively Water Boards) shall approve the use of other methods. Analytical tests shall be conducted by laboratories certified by the California Department of Public Health in accordance with Water Code Section 13176.
3. The presence of sediment toxicity shall be estimated as specified in U.S. EPA's Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods (U.S. EPA Report 600/R-94/025, June 1994), using amphipod *Eohaustorius estuarius*.
4. The Permittee shall include reporting regarding compliance with the narrative toxicity objective in by reporting whether the acute toxicity test "passed" or "triggered" in relation to the acute toxicity trigger of 1.0 TUa (where TUa =100/NOEC) as a daily maximum. For narrative acute toxicity reporting, "Passed" shall be reported when acute toxicity results do not trigger accelerated testing (e.g., a single sample result of ≤ 1.0 TUa. "Triggered" shall be reported when acute toxicity e.g., a single sample result of ≤ 1.0 TUa. "Triggered" shall be reported when acute toxicity results trigger accelerated testing by exceeding the acute toxicity trigger of 1.0 TUa for a single sample.

9.4. Chemical Drug Use

Annually, the Permittee shall report on chemicals and drugs used for disease control, disinfection, and health maintenance at the Facility with sufficient information to determine compliance with Discharge Prohibitions 3.5. Reporting shall include the following information. If no chemicals or drugs are used, the annual report should state, "No chemical or drug use."

- 9.4.1. Product name, active ingredients, and reasons for use;
- 9.4.2. Duration of treatment and method of application (batch or continuous);
- 9.4.3. The location where treatment was applied (seawater or freshwater laboratories, etc.);
- 9.4.4. Application rates of products;
- 9.4.5. The amount of medicated feed used, including active medicinal ingredients; and

9.4.6. The fate of chemicals and drugs (e.g., discharged, transported off-site, etc.).

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

10.1.1. The Permittee shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

10.2. Self-Monitoring Reports (SMRs)

10.2.1. The Permittee shall electronically submit SMRs using the State Water Board’s [California Integrated Water Quality System \(CIWQS\) Program website](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/) (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal. The Permittee shall maintain sufficient staffing and resources to ensure it submits eSMRs that are complete and timely. This includes provisions of training and supervision of individuals (e.g., Permittee personnel or consultant) on how to prepare and submit eSMRs.

10.2.2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Permittee shall submit quarterly SMRs including the results of all required monitoring using U.S. EPA-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 Permittee 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.

10.2.3. All monitoring results reported shall be supported by the inclusion of the complete analytical report from the laboratory that conducted the analyses.

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

Table E-8. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Each Storm/Discharge Event	Permit effective date	All	First day of second calendar month following the end of each quarter (February 1, May 1, August 1, November 1)

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
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 the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	First day of second calendar month following the month of sampling
Annually	January 1 following (or on) permit effective date	January 1 through December 31	March 1, each year (with annual report)
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date.	January 1 through June 30 July 1 through December 31	September 1, each year March 1, each year
Once per Permit Term	Permit Effective Date	All	March 1 following the year that monitoring is completed (with annual report) with last data to be submitted at least 180 days prior to permit expiration

10.2.5. **Reporting Protocols.** The Permittee shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

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

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

10.2.5.2. Sample results less than the RL, 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 as well as the words "Estimated Concentration" (may be shortened to Est. Conc.).

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

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

10.2.5.4. The Permittee is 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 Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.2.6. **Self-Monitoring Reports.** The Permittee shall submit quarterly SMRs in accordance with the following requirements:

10.2.6.1. The Permittee 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 Permittee 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 Permittee shall electronically submit the data in a tabular format as an attachment.

10.2.6.2. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

10.2.6.2.1. Facility name and address;

10.2.6.2.2. WDID number;

10.2.6.2.3. Applicable period of monitoring and reporting;

10.2.6.2.4. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

10.2.6.2.5. Corrective actions taken or planned; and

10.2.6.2.6. The proposed time schedule for corrective actions.

10.2.6.3. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the [CIWQS Program Website](http://www.waterboards.ca.gov/ciwqs/index.html) (<http://www.waterboards.ca.gov/ciwqs/index.html>).

10.2.6.4. In the event that an alternate method for submittal of SMRs is required, the Permittee shall submit the SMR electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the [Regional Water Board website](http://waterboards.ca.gov/northcoast/) (<http://waterboards.ca.gov/northcoast/>).

10.3. Discharge Monitoring Reports (DMRs)

10.3.1. DMRs are U.S. EPA reporting requirements. The Permittee shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. DMRs shall be submitted quarterly on the first day of the second calendar month following the end of each quarter (February 1, May 1, August 1, November 1). Information about electronic DMR submittal is available at the [DMR website](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring) (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

10.4. Other Reports

10.4.1. **Special Study Reports and Progress Reports.** Special study and progress reports shall be submitted in accordance with the following reporting requirements.

Table E-9. Reporting Requirements for Special Provisions Reports

Order Section	Special Provision Requirement	Reporting Requirement
Special Provision 6.3.2.1	Pollutant Minimization Program	If required by the Regional Water Board Executive Officer
Special Provision 6.3.2.2.5	Pollutant Minimization Program, Annual Facility Report	March 1, annually , following development of Pollutant Minimization Program
Special Provision 6.3.4.3	Notification of Construction Activity	180 days prior to any construction activity described in this provision
Special Provision 6.4.7.2	Program for Prevention of Biological Pollutants (PPBP) Review	July 1, 2029

Order Section	Special Provision Requirement	Reporting Requirement
MRP General Monitoring Provision 1.6	DMR-QA Study Report	Annually , per State Water Board instructions
MRP Effluent Monitoring Requirement 5.1.6	Verbal and written notification of chronic toxicity fail result	Within 24 hours after receipt of a fail result.
MRP Effluent Monitoring Requirement 5.2.1	Generic TRE Work Plan review and update	Review by November 1, 2026 Update as necessary
MRP Effluent Monitoring Requirement 5.2.2	TRE Workplan	No later than 30 days receipt of the chronic toxicity monitoring result, or other toxicity event, that initiated the TRE requirement.
MRP Reporting Requirement 10.1.	Rocky Intertidal Marine Life Survey	July 31, 2030
MRP Reporting Requirement 10.2.	Bioaccumulation Study	July 31, 2030
MRP Reporting Requirement 10.3.	Sediment Monitoring/Study	July 31, 2030
MRP Reporting Requirement 10.4.3	Annual Report	March 1 , annually
MRP Reporting Requirement 10.4.2.8.	Chronic Toxicity Results	All chronic toxicity that is required less than annually shall be completed and reported no later than July 31, 2030 .
MRP Reporting Requirement 10.5.1	Notification of spills and unauthorized discharges.	Oral reporting within 24 hours and written report within 5 days

10.4.2. **Annual Report.** The Permittee shall submit an annual report to the Regional Water Board for each calendar year through the CIWQS Program Web site [CIWQS Program Website](https://www.waterboards.ca.gov/ciwqs/index.html) (<https://www.waterboards.ca.gov/ciwqs/index.html>). In the event that a paper copy of the annual report is required, the Permittee shall submit the report to the email address in section 10.2.6.3, above. The report shall be submitted by **March 1** of the following year. The report shall, at a minimum, include the following:

10.4.2.1. Where appropriate, tabular and/or graphical summaries of the monitoring data and disposal records from the previous year. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 C.F.R. part 136 or as specified in this Order, the results of

this monitoring shall be included in the calculation and report of the data submitted SMR.

- 10.4.2.2. A comprehensive discussion of the Facility's compliance (or lack thereof) with all discharge prohibitions, effluent limitations, and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.
- 10.4.2.3. The names and general responsibilities of all persons employed at the Facility;
- 10.4.2.4. The names and telephone numbers of persons to contact regarding the Facility for emergency and routine situations; and
- 10.4.2.5. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.
- 10.4.2.6. **Storm Water Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, an evaluation of the effectiveness of the Permittee's best management practices (BMPs) to control storm water, as well as activities to maintain and upgrade these BMPs.
- 10.4.2.7. **DMR-QA Study Report.** The Permittee shall submit, as part of its annual report to the Regional Water Board, an electronic copy of the annual DMR-QA study report submitted to the State Water Board, Quality Assurance Program Officer pursuant to section 1.6. of this MRP.
- 10.4.2.8. **Chronic Toxicity Results.** The Permittee shall submit chronic toxicity results for discharge points with a monitoring frequency of annually or less with the annual report following the year that chronic toxicity is monitored pursuant to sections 4.1., 4.2., 8.1. and 8.2. of this MRP. All chronic toxicity that is required less than annually shall be completed and reported no later than **July 31, 2030.**
- 10.4.2.9. **Chemical Drug Use Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, a report on chemicals and drugs used for disease control, disinfection, and health maintenance at the Facility, pursuant to section 9.4. of this MRP. If no chemicals or drugs are used, the report shall include the statement "No chemical or drug use."
- 10.4.2.10. **Document Updates.** The Permittee shall identify whether it reviewed any documents required as part of this Order including, but not limited to its TRE and TIE work plans, Operation and Maintenance Manual, Storm Water Management Plan/Program, and Program for Prevention of Biological Pollutants, and the results of the review. If the review found that the document requires revision, the annual report shall state when the revision will be completed. Upon completion of any document revision, the Permittee shall submit a copy of the revised document to the Regional Water Board.

10.4.2.11. **Solids Disposal.** The Permittee shall submit, as part of its annual report to the Regional Water Board, a report on screenings, sludge, and other solids removed from liquid wastes shall be disposed of at a legal point of disposal, and in accordance with the provisions of the Water Code and title 27 of the CCR.

10.4.2.11.1. Sources and amounts of solids generated annually.

10.4.2.11.2. Locations of on-site storage and description of the containment area.

10.4.2.11.3. Plans for ultimate disposal. For landfill disposal, include the present classification of the landfill, and the name and location of the landfill.

10.5. Spill Notification

10.5.1. **Spills and Unauthorized Discharges.** Information regarding all spills and unauthorized discharges (except SSOs) that may endanger health, or the environment shall be provided orally to the Regional Water Board¹ **within 24 hours** from the time the Permittee becomes aware of the circumstances and a written report shall also be provided **within five days** of the time the Permittee becomes aware of the circumstances, in accordance with section 5.5 of Attachment D.

Information to be provided verbally to the Regional Water Board includes:

10.5.1.1. Name and contact information of caller;

10.5.1.2. Date, time, and location of spill occurrence;

10.5.1.3. Estimates of spill volume, rate of flow, and spill duration, if available and reasonably accurate;

10.5.1.4. Surface water bodies impacted, if any;

10.5.1.5. Cause of spill, if known at the time of the notification;

10.5.1.6. Cleanup actions taken or repairs made at the time of the notification; and

10.5.1.7. Responding agencies.

¹ The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, spill reporting to the California Governor's Office of Emergency Services Warning Center (CalOES) will satisfy the 24-hour spill reporting requirement for the Regional Water Board. The contact number for spill reporting for the CalOES is (800) 852-7550.

ATTACHMENT F - FACT SHEET

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ATTACHMENT F - FACT SHEET

As described in section 2.2 of this Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	1B12187NHUM
Permittee	California Polytechnic University, Humboldt
Name of Facility	Telonicher Marine Laboratory
Facility Address	<u>570 Ewing Street, Trinidad, CA 95570, Humboldt County</u>
Facility Contact, Title and Phone	<u>Eric Bjorkstedt, Director of Marine Operations, (707) 826-3688</u>
Authorized Person to Sign and Submit Reports	<u>Christina Koczera, Director of Risk Management & Safety, (707) 826-4635</u>
Mailing Address	<u>1 Harpst Street, Suite 311, Arcata, CA 95521</u>
Billing Address	<u>1 Harpst Street, Suite 311, Arcata, CA 95521</u>
Type of Facility	<u>Marine Laboratory</u>
Major or Minor Facility	<u>Minor</u>
Threat to Water Quality	<u>3</u>
Complexity	<u>C</u>
Pretreatment Program	<u>Not Applicable</u>
Recycling Requirements	<u>Not Applicable</u>
Facility Permitted Flow	<u>123,232 gallons per day (gpd)</u>
Facility Design Flow	<u>Semi-open recirculating system</u>
Watershed	Humboldt Watershed Management Area (WMA)

Receiving Water	Pacific Ocean
Receiving Water Type	Ocean Waters

1.1. Permittee Description

1.1.1. The California State Polytechnic University, Humboldt (hereinafter Permittee) is the owner and operator of the Telonicher Marine Laboratory (hereinafter Facility), a marine laboratory.

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 Permittee herein.

The Permittee is authorized to discharge subject to waste discharge requirements in this Order at the discharge locations described in Table 4 on the cover page of this Order. The Code of Federal Regulations at 40 C.F.R. section 122.46 limits the duration of NPDES permits to be effective for a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the effective period for the discharge authorized by this Order. Pursuant to California Code of Regulations (CCR), title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits are complied with.

1.1.2. The Facility discharges waste seawater and filter backwash to the Pacific Ocean, a water of the United States. The Permittee was previously regulated by Order No. R1-2019-0037 and NPDES Permit No. CA0025151 adopted on October 17, 2019 and expired on December 31, 2024. The terms and conditions of the current Order and MRP have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides flow schematics of the Facility.

1.1.3. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit on December 15 2023. The application was deemed complete on September 25, 2024.

2. FACILITY DESCRIPTION

The Permittee owns and operates a teaching and marine research institute. The Facility is a unit of California State Polytechnic University, Humboldt supporting education and research for the department of Oceanography, Fisheries Biology, and Biology (Marine Biology option). The Facility also serves a public outreach function, including guided tours and summer programs led by marine naturalist,

and self-guided tours of the laboratory's exhibits (public display aquaria and touch tanks). The Facility has two large instructional classrooms/laboratories, offices for 14 faculty and graduate students, specialized research laboratories, an algal and zooplankton rearing area, and other rooms that support education and research. A recirculating seawater system supplies classrooms, a wet laboratory, and public display aquaria and touch tanks with high-quality filtered seawater.

The Permittee operates an intake pump at Trinidad Pier that pumps seawater from Trinidad Bay uphill into two underground storage tanks at the Facility. The intake suction hose within the Bay is equipped with a ¼-inch mesh screen. Screen maintenance consists of algae removal by hand. The intake pump has a capacity of 1,400 gallons per hour, depending on the tide and operates 12 to 15 times per year for 2 to 6 hours at a time. The water in the storage tanks is gravity fed to a sump where it is kept at a consistent height, using a float valve. The Facility is equipped with two pumps, each with a capacity of 13 horsepower, that recirculate seawater from the sump through two sand filters, 2 chillers, aquariums and wet tables in the laboratory, then back to the sump. The Permittee operates one pump at a time, 24 hours per day, throughout the year. A portion of the seawater from the sump is pumped back to the storage tanks so that water is continually being replaced in the sump. The aquariums and wet tables drain by gravity back to the sump.

The most frequent discharge from the Facility's waste seawater system consists of filter backwash. Sand filters are backwashed one to two times per month, resulting in roughly 7,000 to 15,000 gallons of filter backwash water. The maximum volume from a filter backwash event during June 2021 was 12,686 gallons. Other intermittent discharges arise from the following:

- 2.1.1. Draining and refilling of each of the two, approximately 20,000-gallon underground storage tanks (total of 40,000 gallons). Draining of the tanks occurs approximately once every other year during the dry season and does not occur during storm events. The drainage duration is approximately one hour for each tank and the Permittee drains one tank per day over a two-day period. In the event of required tank maintenance, the Permittee would temporarily decommission one tank, while keeping the other tank functional.
- 2.1.2. Overflow resulting from allowing the pump on the pier to continue running after the storage tanks are full. The Permittee estimates this discharge volume as 50,000 gallons per year.
- 2.1.3. Draining of seawater that is circulating in through the laboratory instead of returning it to the sump, referred to as "sump diversion." Sump diversion coincides with pumping water from Trinidad Bay to the storage tanks. The purpose of this procedure is to periodically exchange a portion of the older recirculating seawater with new seawater. The Permittee estimates this discharge volume as 50,000 gallons per year.

- 2.1.4. Draining of approximately 2,000 gallons from the sump during routine preventive maintenance. Once per year, the Permittee empties and cleans the sump during the summer to prevent check valve malfunction. The sump capacity is 1,830 gallons; however, it is not completely full when emptied.
- 2.1.5. Drainage resulting from incidental spills and leaks, and drainage of display aquariums, estimated at 46,000 gallons per year.
- 2.1.6. With the exception of filter backwash, the discharges are controllable and are scheduled to occur during dry weather. No chemicals are added to the waste seawater system. The Permittee occasionally uses a small ultraviolet light sterilizer but would like to apply this treatment to the entire system as funding is available. Projects involving non-native or invasive species are conducted in isolated systems and do not contribute wastewater to the waste seawater system. Water from floor drains is discharged to the septic system.
- 2.1.7. Prior to December 2021, Discharge Point 001 discharged stormwater that flowed from the marine lab property. The Facility no longer discharges stormwater at this Discharge Point. The University and the town of Trinidad completed a stormwater infiltration project that now infiltrates all of Trinidad's stormwater into in-ground infiltration basins. As part of this work, the Permittee separated the seawater sources from the stormwater sources on the marine lab's property. Stormwater now flows into the town of Trinidad's stormwater infiltration system immediately after it exits the marine lab property.

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Permittee does not employ any other physical, chemical, or biological wastewater treatment processes prior to discharging. The Permittee does not use chlorine in the areas contributing to the seawater drainage system.

2.2. Discharge Points and Receiving Waters

The seawater effluent is routed to a discharge pipe that extends underground south of the laboratory to the beach of Trinidad Bay. Discharge Point 001 is located near Trinidad Pier, in near shore waters of the Pacific Ocean, a water of the United States. The Facility and Discharge Point 001 are located in the Humboldt WMA within the Trinidad Head Area of Special Biological Significance (ASBS).

- 2.2.1. Waste seawater and filter backwash are discharged at Discharge Point 001 at 41°03' 23" N latitude and 124°08' 49" W longitude, to the Pacific Ocean.
- 2.2.2. The Ocean Plan prohibits discharges to ASBS waters, unless an exception to the prohibition is granted by the State Water Board. The Ocean Plan states that the State Water Board may, in compliance with California Environmental Quality Act (CEQA), subsequent to a public hearing, and with the concurrence

of U.S. EPA, grant exceptions where the Board determines: (a) the exception will not compromise protection of ocean waters for beneficial uses, and (b) the public interest will be served.

The State Water Board granted an exception to this prohibition for the Facility on October 18, 2011 with Resolution No. 2011-0049, which establishes terms and conditions of approval that must be incorporated into this Order. The following table provides a summary of these terms and conditions, and reference to the section of the Order in which they are located.

Table F-2. Terms and Conditions of Resolution No. 2011-0049 (Attachment A) Incorporated into the Order

Attachment A Section	Description of Provision	Order Section Number
Seawater System Waste Seawater	The discharge must comply with the Ocean Plan.	MRP Section 8.1.1. and 8.2.1.
Seawater System Waste Seawater	Natural water quality conditions in the receiving water shall not be altered.	MRP Section 8.1.1 and 8.2.1
Seawater System Waste Seawater	Natural ocean water quality will be determined by a comparison to the range of constituent concentrations in reference area.	MRP Section 8.1.1 and 8.2.1
Seawater System Waste Seawater	The Permittee must not discharge chemical additives or filter solids, including antibiotics and chlorine.	Section 3.5. and 3.6.
Seawater System Waste Seawater	The seawater effluent must comply with effluent limits implementing Table 3 water quality objectives as required in Section III.C of the Ocean Plan.	Section 3.8.
Seawater System Waste Seawater	The Permittee must develop and implement a program for prevention of Biological Pollutants.	Section 6.4.7.2.
Dry Weather Flows	The Permittee must prevent all discharges of non-storm water Facility runoff, with some exceptions.	Section 3.10.
Dry Weather Flows	The Permittee must develop and implement a program to prohibit non-storm water runoff draining to the ASBS in a SWMP.	Section 6.4.5.2.
Dry Weather Flows	The SWMP must describe the strategy for preventing non-storm water runoff from entering the discharge.	Section 6.4.5.2.
Rocky Intertidal Marine Life Survey	The Permittee must conduct a rocky intertidal marine life survey to be approved by the State Water Board's Division of Water Quality	Section 6.4.1. and MRP Section 9.1.

Attachment A Section	Description of Provision	Order Section Number
Bioaccumulation Study	The Permittee must perform a bioaccumulation study using California mussels (<i>Mytilus californianus</i>) to be approved by the State Water Board's Division of Water Quality.	Section 6.4.2. and MRP Section 9.2.
Bioaccumulation Study	The Regional Water Board staff, in consultation with the State Water Board's Division of Water Quality staff, must approve the study design.	Section 6.4.2. and MRP Section 9.2.
Sediment Study	The Permittee must sample and analyze the subtidal sediment effluent for Ocean Plan Table 3 constituents for Marine Aquatic Life, including acute toxicity.	Section 6.4.3.and MRP Section 9.3.
Waste Seawater Effluent Monitoring	The Permittee must monitor and report waste seawater flow.	MRP Section 4.1.1.
Waste Seawater Effluent Monitoring	The Permittee must monitor waste seawater discharge during a filter backwash event during the dry season. Ammonia must be measured at a detection limit of 10 µg/L.	MRP Sections 4.1.1.
Reference Site Monitoring	The Permittee must monitor receiving water at a reference station or participate in a regional monitoring program approved by the State Water Board.	MRP Sections, 8.1.1. and 8.2.1.
Metals Analysis	Samples must be analyzed by the approved analytical method with the lowest minimum detection limits described in the Ocean Plan.	MRP Sections 4.1.1.,4.2.1., 8.1.1., and 8.2.1.
Alteration of Natural Water Quality	The Regional Water Board will make determinations as to whether the Permittee's discharge results in "alteration of natural water quality"	Section 6.3.1.5.
Construction Activity Potentially Affecting the ASBS	The Regional Water Board must be notified within 180 days prior to any construction activity that could result in any discharge or habitat modification in the ASBS.	Section 6.4.5.3.

2.3. Summary of Existing Requirements and SMR Data

Effluent limitations contained in Order No. R1-2019-0037 for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of Order No. R1-2019-0037 are as follows:

Table F-3. Historic Effluent Limitations and Monitoring Data

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Settleable Solids	ml/L	1.01	1.51	3.0 ¹	0.2	0.2	0.2 ²
Total Suspended Solids	mg/L	--	--	60	--	--	41 ²
pH	s.u.	--	--	6.0 – 9.0 ²	--	--	7.7-7.8 ³

Table Notes

1. The discharge shall not contain concentrations of solids above those found in the receiving water at Monitoring Location RSW-001. In no case shall effluent concentrations exceed the Ocean Plan Table 2 effluent limitations.
2. Represents the instantaneous maximum effluent limitation.
3. Represents the highest and lowest observed gross effluent concentration.

2.4. **Compliance Summary**

On May 11, 2022, the Regional Water Board issued an Invitation to Enter Settlement Prior to Issuance of Formal Administrative Civil Liability Complaint (Invitation to Settle) for violations for 6 late reporting in Order No. R1-2019-0037. The Invitation to Settle assessed a penalty of \$3,000 for these violations. On July 12, 2022, the Executive Officer issued an Administrative Civil Liability (ACL) Order No. R1-2022-0007 assessing penalties of \$3,000.

2.5. **Planned Changes**

No modifications or operational changes that will cause a material change in the volume or quality of discharges from the Facility have been identified for 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 is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit authorizing the Permittee to discharge into waters of the United States at the discharge location described in Table 1, subject to the requirements in this Order. This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

3.2. **California Environmental Quality Act (CEQA)**

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code. Before the Regional Water Board could consider adoption of this NPDES permit, however, the Permittee was required to seek an exception to the California Ocean Plan to allow discharges to the Trinidad Head ASBS. On October 18, 2011, with State Water Board Resolution No. 2011-0049, the State Water Board approved an exception to the California Ocean Plan for the Facility, a decision that was subject to the requirements of CEQA. The State Water Board, as the lead agency for the CEQA analysis, prepared and circulated an Initial Study/Mitigated Negative Declaration (IS/MND) for the proposed exception; held a public hearing on October 18, 2011 to hear comments regarding the exception and the IS/MND; and formally responded to comments. Based on the entire record including the IS/MND, comments received, and the response to comments, the State Water Board concluded that there was no

substantial evidence that approval of such an exception would have a significant effect on the environment, so long as the Permittee applied for coverage under the NPDES permit program and the specific terms and conditions were incorporated into the Facility's NPDES permit. State Water Board Resolution No. 2011-0049, therefore approved an exception to the California Ocean Plan, approved an MND and required that certain specific terms and conditions be included into the NPDES permit to ensure on-going protection of the Trinidad Head ASBS. These actions satisfy CEQA requirements for Discharge Point 001.

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

3.3.1. Water Quality Control Plan

The Regional Water Board adopted a Water Quality Control Plan for the North Coast Region (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Board Resolution No. 88-63, which establishes state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). With high concentrations of total dissolved solids, ocean waters meet an exception to State Water Board Resolution No. 88-63; and therefore, the MUN designation is not applicable to the ocean receiving water for this Permittee. Beneficial uses applicable to the Pacific Ocean are summarized in Table F-4, below:

Table F-4. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<p><u>Existing:</u> Navigation (NAV); Water contact recreation (REC-1); Non-contact water recreation (REC-2); Commercial and sport fishing (COMM); Wildlife habitat (WILD); Rare, threatened, or endangered species (RARE); Marine habitat (MAR); Migration of aquatic organisms (MIGR); Spawning, reproduction, and/or early development (SPAWN); Shellfish harvesting (SHELL); Aquaculture (AQUA); and Preservation of Areas of Special Biological Significance (ASBS).</p> <p><u>Potential:</u> Industrial water supply (IND); and Industrial process supply (PRO);</p>

Requirements of this Order implement the Basin Plan.

3.3.2. Thermal Plan

The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan) on January 7, 1971 and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal waters. The Permittee does not discharge thermal waste; therefore, the Order does not include effluent limitations for temperature in response to the requirements of the Thermal Plan.

3.3.3. California Ocean Plan

The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, 2015, and 2019. The State Water Board adopted the latest amendment on August 7, 2018, and it became effective on February 4, 2019. The Ocean Plan is applicable, in its entirety, to point source discharges to the Pacific Ocean. In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program for implementation. The Ocean Plan identifies the beneficial uses of ocean waters of the state to be protected as summarized below:

Table F-5. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Pacific Ocean	<u>Existing:</u> Industrial water supply; Water contact and non-contact recreation, including aesthetic enjoyment; Navigation; Commercial and sport fishing; Mariculture; Preservation and enhancement of designated Areas of Special Biological Significance (ASBS); Rare and endangered species; Marine habitat; Fish migration; Fish spawning; and Shellfish harvesting.

3.3.4. Compliance Schedules and Interim Requirements.

This Order does not include any compliance schedules or interim effluent limitations.

3.3.5. Antidegradation Policy

Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California’s antidegradation policy in State Water Board Resolution 68-16 (“Statement of Policy with Respect to Maintaining High Quality of Waters in California”). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board’s Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

3.3.6. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. 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. As discussed in detail in section 4.4.1 of this Fact Sheet, removal or relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

As discussed in Section 5.1 of this Fact Sheet, this Order removes generalized receiving water limitations contained in the Permittee's prior waste discharge requirements. The removal of this requirement is consistent with the U.S. Supreme Court's holding in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 U.S. 704. However, as discussed in Section 5.1 of this factsheet, the board has included additional requirements to ensure the discharge complies with CWA section 301(b)(1)(C) (33 U.S.C. § 1311(b)(1)(C)). As a result, the discharge does not authorize violations of water quality standards, and the removal of the generalized receiving water limitation does not authorize the additional discharge of pollutants or authorize the violation of water quality standards. The Order does not, therefore, authorize either backsliding or further degradation of water quality.

3.3.7. **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, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 151 to 1544). This Order requires compliance with effluent limitations, and other requirements to protect the beneficial uses of waters of the state. The Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.

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

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies every two years. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. The CWA requires development of a total maximum daily load (TMDL) or alternate program of implementation for each 303(d) listed pollutant and water body to remedy the impairment. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine wasteload allocations (the portion of a TMDL allocated to existing and future point sources) and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources).

On April 6, 2018, the U.S. EPA provided final approval of the 2014 and 2016 303(d) List of Impaired Water Bodies prepared by the state. The list identifies Trinidad State Beach as impaired for indicator bacteria. Discharge Point 001 and Trinidad Bay are separated from Trinidad State Beach by approximately 1 mile of coastline around Trinidad Head. It is unknown whether the discharge will affect the 303(d) listed waters of Trinidad State Beach; therefore, this Order contains monitoring requirements for bacteria. This monitoring data will be used to evaluate whether there is reasonable potential for the Permittee's discharge to cause or threaten to cause reasonable potential for exceedance of receiving water objectives for bacteria.

3.5. Other Plans, Polices and Regulations

3.5.1. Resolution No. 2011-0049

On October 18, 2011, with Resolution No. 2011-0049, the State Water Board approved an exception to the California Ocean Plan's prohibition regarding discharges to ASBS, thereby allowing continued discharges from the Facility to the Trinidad Head ASBS. In its CEQA analysis, the State Water Board concluded that there was no substantial evidence that approval of such an exception would have a significant effect on the environment, so long as specific terms and conditions were incorporated into the Facility's NPDES permit. Attachment A to Resolution No. 2011-0049, therefore, included several specific terms and conditions that have been incorporated into this Order (refer to Table F-2, in Section 2.2. of this Fact Sheet).

3.5.2. Storm Water

State Water Board Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial Storm Water General Permit) does not require facilities to obtain coverage if storm water is captured and treated and/or disposed of within the facility's NPDES permitted process wastewater or if storm water is disposed of in evaporation ponds, percolation ponds, or combined sewer systems. The Facility now captures and drains all storm water to the City of Trinidad's Separate Storm Sewer System that infiltrates stormwater into inground infiltration basins, therefore, coverage under the Industrial Storm Water General Permit is not required for this Facility.

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 United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits.

There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where a reasonable potential to exceed those criteria exists.

4.1. Discharge Prohibitions

- 4.1.1. **Discharge Prohibition 3.1.** The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.

This prohibition has been retained from Order No. R1-2019-0037 and is based on the Basin Plan and State Water Board Order No. WQO 2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order No. WQO 2002-0012, the State Water Board found that this prohibition is acceptable in orders but should be interpreted to apply only to constituents that are either not disclosed by the Permittee or are not reasonably anticipated to be present in the discharge but have not been disclosed by the Permittee. It specifically does not apply to constituents in the discharge that do not have “reasonable potential” to exceed water quality objectives.

The State Water Board has stated that the only pollutants not covered by this prohibition are those which were “disclosed to the permitting authority and...can be reasonably contemplated.” [In re the Petition of East Bay Municipal Utilities District et al., (State Water Board, 2002) Order No. WQO 2002-0012, p. 24]. In that Order, the State Water Board cited a case which held the Permittee is liable for the discharge of pollutants “not within the reasonable contemplation of the permitting authority...whether spills or otherwise...” [Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland (4th Cir. 2001) 268 F. 3d 255, 268.] Thus, the State Water Board authority provides that, to be permissible, the constituent discharged (1) must have been disclosed by the Permittee and (2) can be reasonably contemplated by the Regional Water Board.

- 4.1.2. **Discharge Prohibition 3.2.** Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.

This prohibition has been retained from Order No. R1-2018-0034. As discussed in Section 5.1 of this Fact Sheet, this Order removes generalized receiving water limitations contained in the Permittee’s prior waste discharge requirements from the CWA NPDES provisions and requirements of this Order. Discharge Prohibition 3.2 maintains, as a matter of state law, the requirements that neither the treatment nor discharge shall create nuisance as defined by

Water Code section 13050. The Regional Water Board has maintained this requirement as a state law requirement to implement Water Code section 13263, which identifies the need to prevent nuisance as a basis for issuing waste discharge requirements. The U.S. Supreme Court's decision in *City and County of San Francisco v. U.S. EPA* did not interpret the Water Code. Further, there is no provision of the Water Code analogous to the NPDES permit shield that was the basis of the U.S. Supreme Court's decision. Likewise, the Porter-Cologne Water Quality Control Act has consistently recognized the ability of the Water Boards to regulate to prevent nuisance and the Porter-Cologne Act does not share the legislative history of the federal Clean Water Act. This order therefore maintains the existing nuisance language to continue nuisance protections as a matter of state law.

- 4.1.3. **Discharge Prohibition 3.3.** The discharge of waste at any point not described in Finding 2.2. of the Fact Sheet or authorized by a permit issued by the State Water Board or another Regional Water Board is prohibited.

This prohibition has been retained from Order No. R1-2019-0037. This prohibition is a general prohibition that allows the Permittee to discharge waste only in accordance with WDRs. It is based on sections 301 and 402 of the federal CWA and section 13263 of the Water Code.

- 4.1.4. **Discharge Prohibition 3.4.** The discharge of exotic organisms (non-endemic, non-naturalized plants, animals, and microorganisms, including gametes, spores, larvae, and parts of such organisms) is prohibited.

This prohibition has been retained from Order No. R1-2019-0037. This prohibition is based on the Regional Water Board's concern regarding the introduction of non-native and/or exotic species and/or fish pathogens to the Trinidad Head ASBS.

- 4.1.5. **Discharge Prohibition 3.5.** The discharge of chemical additives, including antibiotics and chlorine is prohibited

This prohibition is retained from Order No. R1-2019-0037 and is consistent with the Terms and Conditions required by Attachment A of State Water Board Resolution No. 2011-0049.

- 4.1.6. **Discharge Prohibition 3.6.** The discharge of waste, including filter solids, resulting from cleaning and maintenance activities, is prohibited.

This prohibition is retained from Order No. R1-2019-0037. This prohibition is based on the Regional Water Board's concern that cleaning and maintenance activities may produce wastes that may include cleaning chemicals, concentrate pollutants, or generate solids that should not be discharged to the seawater outfall. Storm drain inlets and filters must be maintained in accordance with the Facility storm water management plan to ensure that

solids and debris are removed from the inlets and disposed of properly. This prohibition is also contained in the Basin Plan Policy on the Regulation of Fish Hatcheries, Fish Rearing Facilities, and Aquaculture Operations.

- 4.1.7. **Discharge Prohibition 3.7.** The discharge of trash, petroleum products, and pesticides is prohibited.

This prohibition is retained from Order No. R1-2019-0037 and is consistent with the Terms and Conditions required by Attachment A of State Water Board Resolution No. 2011-0049.

- 4.1.8. **Discharge Prohibition 3.8.** The discharge of any constituents to the ocean at levels in excess of the water quality objectives established by Ocean Plan Table 3 (2019) is prohibited.

This prohibition is retained from Order No. R1-2019-0037 and is consistent with the Terms and Conditions required by Attachment A of State Water Board Resolution No. 2011-0049.

- 4.1.9. **Discharge Prohibition 3.9.** The maximum daily discharge from the combined seawater system shall not exceed 123,232 gallons.

This prohibition is retained from Order No. R1-2019-0037, is consistent with the exception to the Ocean Plan's prohibition against discharges to Trinidad Head ASBS granted by State Water Board Resolution No. 2011-0049 and is based on the maximum flow estimate provided by the Permittee.

- 4.1.10. **Discharge Prohibition 3.10.** Discharges of non-storm water Facility runoff to the ocean (i.e., any discharge runoff from the Facility that reaches the ocean and that is not composed entirely of storm water), except those associated with the waste seawater system and emergency firefighting, are prohibited.

This prohibition is retained from Order No. R1-2019-0037 and is consistent with the Terms and Conditions required by Attachment A of State Water Board Resolution No. 2011-0049.

- 4.1.11. **Discharge Prohibition 3.11.** The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into waters of the state is prohibited.

This prohibition is retained from Order No. R1-2019-0037 and is based on the discharge prohibitions contained in section III.C.I of the Ocean Plan and section 13375 of the Water Code.

- 4.1.12. **Discharge Prohibition 3.12.** The discharge of water containing the following substances is prohibited:

3.12.1. Visible oil and grease;

- 3.12.2. Material that is floatable or will become floatable upon discharge;
- 3.12.3. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life;
- 3.12.4. Substances which will accumulate to toxic levels in marine waters, sediments or biota;
- 3.12.5. Substances that significantly decrease the natural light to benthic communities and other marine life;
- 3.12.6. Aesthetically undesirable color or materials.

This prohibition is newly established by this Order and is necessary to ensure that discharge complies with water quality objectives contained in section II.C. of the Ocean Plan. This prohibition was previously included as a generalized receiving water limitations contained in the Permittee's prior waste discharge requirements. Generalized receiving water limitations were removed from this Order based on the U.S. Supreme Court's decision in City and County of San Francisco v. U.S. EPA.

4.2. Technology-Based Effluent Limitations

4.2.1. Scope and Authority

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

The CWA requires that technology-based effluent limitations are established based on several levels of controls:

- 4.2.1.1. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- 4.2.1.2. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- 4.2.1.3. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including five-day biochemical oxygen demand (BOD), total suspended solids (TSS), fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the

relationship between the cost of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

- 4.2.1.4. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

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

4.2.2. **Applicable Technology-Based Effluent Limitations**

4.2.2.1. **Ocean Plan Table 2 Effluent Limitations.**

The State Water Board, in Table 2 of the Ocean Plan, has established technology-based effluent limitations that apply to POTWs, and also to industrial discharges for which Effluent Limitations Guidelines have not been established pursuant to Sections 301, 302, 304, or 306 of the federal CWA. Compliance with Table 2 effluent limitations, or ELGs for industrial discharges, based on BCT, shall be the minimum level of treatment acceptable under the Ocean Plan, and shall define reasonable treatment and waste control technology. The Facility is not subject to ELGs at this time; therefore, technology-based limitations contained in Table 2 of the Ocean Plan are applicable to the Permittee. However, Attachment A of State Water Board Resolution No. 2011-0049 states that seawater effluent does not need to be monitored for oil and grease.

The terms contained in Attachment A to State Water Board Resolution No. 2011-0049 require that the “natural water quality conditions in the receiving water must not be altered as a result of the discharge(s) and marine communities must be protected from pollution...” Therefore, the Permittee must not add pollutants beyond what is present in the receiving water at the discharge site. Since elevated TSS and settleable solids are common in filter backwash, this Order limits effluent TSS and settleable solids concentrations to the concentrations within the receiving water at the time of discharge. Procedures for determining compliance with this limitation are described in the Order section 7.10. In any event, effluent TSS and settleable solids concentrations must not exceed Ocean Plan Table 2 effluent limitations.

Requirements for TSS, settleable solids, turbidity, and pH reflect a reasonable level of pollutant control for facilities that hold and grow aquatic organisms.

4.3. **Water Quality-Based Effluent Limitations (WQBELs)**

4.3.1. **Scope and Authority**

CWA Section 301(b) and 40 C.F.R. 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 C.F.R. 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) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan and 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**

4.3.2.1. **Beneficial Uses.** Beneficial use designations for receiving waters for discharges from the Facility are presented in section 3.3.1 and 3.3.3 of this Fact Sheet.

4.3.2.2. **Ocean Plan Water Quality Objectives.** Water quality criteria applicable to ocean waters of the Region are established by the Ocean Plan, which includes general provisions and water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. These water quality objectives from the Ocean Plan are incorporated as effluent limitations or monitoring requirements in section 4.1. of the Order. Table 3 of the Ocean Plan contains numeric water quality objectives for 83 toxic pollutants for the protection of marine aquatic life and human health. Pursuant to NPDES regulations at 40 C.F.R. section 122.44(d)(1), and in accordance with procedures established by the Ocean Plan, the Regional Water Board has performed an Ocean Plan reasonable

potential analysis (RPA) to determine the need for effluent limitations for the Table 3 toxic pollutants.

4.3.2.3. **Minimum Initial Dilution.** The Permittee discharges to an ASBS. The terms contained in Attachment A to State Water Board Resolution No. 2011-0049 require that the “natural water quality conditions in the receiving water must not be altered as a result of the discharge(s) and marine communities must be protected from pollution...” therefore all effluent limitations are calculated with no dilution credit.

4.3.3. **Determining the Need for WQBELs**

NPDES regulations at 40 C.F.R. section 122.44(d) require effluent limitations to control all pollutants which are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard. The reasonable potential analysis (RPA) for the Facility was conducted as follows:

4.3.3.1. **Ocean Plan RPA.** Procedures for performing an RPA for ocean dischargers are described in Section III.C. and Appendix VI of the Ocean Plan. In general, the procedure is a statistical method that projects an effluent data set while taking into account the averaging period of water quality objectives, the long-term variability of pollutants in the effluent, limitations associated with sparse data sets, and uncertainty associated with censored data sets. The procedure assumes a lognormal distribution of the effluent data set and compares the 95th percentile concentration at 95 percent confidence of each Table 3 pollutant, accounting for dilution, to the applicable water quality criterion. The RPA results in one of three following endpoints.

Endpoint 1 – There is “reasonable potential,” and a WQBEL and monitoring are required.

Endpoint 2 – There is “no reasonable potential.” WQBELs are not required, and monitoring is required at the discretion of the Regional Water Board.

Endpoint 3 – The Ocean Plan RPA is inconclusive. Existing WQBELs are retained, and monitoring is required.

The State Water Resources Control Board has developed a [reasonable potential calculator](https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc22_setup.zip) (https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/trirev/stakeholder050505/rpcalc22_setup.zip). The calculator (RPcalc 2.2) was used in conducting the RPA and considers several pathways in the determination of reasonable potential.

4.3.3.1.1. **First Path**

If available information about the receiving water or the discharge supports a finding of reasonable potential without analysis of effluent data, the Regional Water Board may decide that WQBELs are necessary after a review of such information. Such information may include: the facility or discharge type, solids loading, lack of dilution, history of compliance problems, potential toxic effects, fish tissue data, 303(d) status of the receiving water, or the presence of threatened or endangered species or their critical habitat, or other information.

4.3.3.1.2. **Second Path**

If any pollutant concentration, adjusted to account for dilution, is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

4.3.3.1.3. **Third Path**

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), and all values in the data set are at or above the ML, a parametric RPA is conducted to project the range of possible effluent values. The 95th percentile concentration is determined at 95 percent confidence for each pollutant and compared to the most stringent applicable water quality objective to determine reasonable potential. A parametric analysis assumes that the range of possible effluent values is distributed log normally. If the 95th percentile value is greater than the most stringent applicable water quality objective, there is reasonable potential for that pollutant.

4.3.3.1.4. **Fourth Path**

If the effluent data contains three or more detected and quantified values (i.e., values that are at or above the ML), but at least one value in the data set is less than the ML, a parametric RPA is conducted according to the following steps.

4.3.3.1.4.1. If the number of censored values (those expressed as a “less than” value) account for less than 80 percent of the total number of effluent values, calculate the ML (the mean of the natural log of transformed data) and SL (the standard deviation of the natural log of transformed data) and conduct a parametric RPA, as described above for the Third Path.

4.3.3.1.4.2. If the number of censored values account for 80 percent or more of the total number of effluent values, conduct a non-parametric RPA, as described below for the Fifth Path. (A non-parametric analysis becomes necessary when the effluent data is limited, and no assumptions can be made regarding its possible distribution.)

4.3.3.1.5. **Fifth Path**

A non-parametric RPA is conducted when the effluent data set contains less than three detected and quantified values, or when the effluent data set contains three or more detected and quantified values but the number of censored values accounts for 80 percent or more of the total number of effluent values. A non-parametric analysis is conducted by ordering the data, comparing each result to the applicable water quality objective, and accounting for ties. The sample number is reduced by one for each tie, when the dilution adjusted method detection limit (MDL) is greater than the water quality objective. If the adjusted sample number, after accounting for ties, is greater than 15, the pollutant has no reasonable potential to exceed the water quality objective. If the sample number is 15 or less, the RPA is inconclusive, monitoring is required, and any existing effluent limitations in the expiring permit are retained.

4.3.4. **Reasonable Potential Determination**

4.3.4.1. **Seawater Effluent**

The RPA for waste seawater (primarily filter backwash water) was conducted using effluent monitoring data generated from monitoring events for Ocean Plan Table 3 constituents from October 2019 through September 2023, and from routine monitoring events conducted during the previous permit term as required by the Monitoring and Reporting Program for Order No. R1-2019-0037. Results from the RPA have been used to determine the need for effluent limitations for Table 3 parameters given in the Ocean Plan. No credit for dilution was allowed in conducting the RPA.

Table F-6, below, identifies the RPA endpoint for each Table 3 parameter detected in the seawater effluent and shows the analysis reached an Endpoint 3 for most of the parameters analyzed. An Endpoint 3 RPA is inconclusive and results when a majority of the effluent data is reported as ND (not detected). In these circumstances, the Regional Water Board views the “inconclusive” result as an indication of no concern for a particular pollutant; however, additional monitoring will be required for those parameters during the term of the permit.

The RPA conducted for the Facility demonstrated reasonable potential (1) for seawater discharges from the Facility to cause or contribute to exceedances of applicable water quality criteria for arsenic, copper, nickel, zinc, chromium, cadmium, and PAHs.

The following table summarizes the RPA for each priority pollutant that was reported in detectable concentrations in the seawater effluent. The MECs, most stringent water quality objectives (WQO), and background concentrations (B) used in the RPA are presented, along with the RPA results for each toxic pollutant analyzed. No other pollutants with applicable numeric water quality

criteria from the Ocean Plan were measured above detectable concentrations or analyzed for during the monitoring events conducted by the Permittee.

Attachment F to this Order includes a summary of RPA results for all priority toxic pollutants with water quality criteria/objectives that are applicable to the Pacific Ocean.

Table F-6. Summary of Reasonable Potential Analysis Results

Parameter	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Background Conc. (µg/L) Cs	Max Effluent Conc. (µg/L) Ce	Calculated Max Conc. (µg/L) X-obs	RPA Endpoint
Arsenic	8	5	0	3	3.45	9.85 ³	Endpoint 1
Cadmium	1	5	0	0	0.577	4.9 ³	Endpoint 1
Copper	3	5	0	2	7.75	7.75	Endpoint 1
Lead	2	5	0	0	0.576	0.576	Endpoint 2
Mercury	0.04	5	1	0.0005	0.014	0.014	Endpoint 2
Nickel	5	5	0	0	< 50	< 50	Endpoint 1
Selenium	15	5	0	0	0.347	0.347	Endpoint 2
Silver	0.7	5	0	0.16	0.531	0.531	Endpoint 2
Zinc	20	5	0	8	24.5	24.5	Endpoint 1
Ammonia (as N)	600	5	0	0	0.185	0.185	Endpoint 2
Antimony	1200	5	1	0	0.185	17.4 ³	Endpoint 2

Parameter	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Background Conc. (µg/L) Cs	Max Effluent Conc. (µg/L) Ce	Calculated Max Conc. (µg/L) X-obs	RPA Endpoint
Chronic Toxicity	1 ⁸	6	0	0	1	1	Endpoint 1 ⁹
Bis(2-chloroethoxy) methane	4.4	2	2	0	0.577	0.577	Endpoint 3
Bis(2-chloroisopropyl) ether	1200	2	2	0	0.577	0.577	Endpoint 3
Chlorobenzene	570	8	8	0	6.49	6.49	Endpoint 3
Dichlorobenzenes	5100	6	6	0	< 1	< 1	Endpoint 3
Fluoranthene	15	10	10	0	< 1	< 1	Endpoint 3
Hexachlorocyclopentadiene	58	2	2	0	< 50	< 50	Endpoint 3
Nitrobenzene	4.9	2	2	0	< 50	< 50	Endpoint 3
Thallium	2	5	1	0	0.046	0.046	Endpoint 2
Toluene	85000	4	4	0	46	46	Endpoint 3
Benzidine	0.000069	4	4	0	< 1	< 1	Endpoint 3
Beryllium	0.033	5	3	0	0.026	0.026	Endpoint 3
Bis(2-chloroethyl) Ether	0.045	2	2	0	0.577	0.577	Endpoint 3

Parameter	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Background Conc. (µg/L) Cs	Max Effluent Conc. (µg/L) Ce	Calculated Max Conc. (µg/L) X-obs	RPA Endpoint
Bis(2-ethylhexyl) Phthalate	3.5	3	0	0	0.577	0.577	Endpoint 2
1,4-Dichlorobenzene	18	2	2	0	< 50	< 50	Endpoint 3
2,4-Dinitrotoluene	2.6	2	2	0	< 50	< 50	Endpoint 3
Hexachlorobutadiene	14	2	2	0	< 50	< 50	Endpoint 3
Hexachloroethane	2.5	2	2	0	< 1	< 1	Endpoint 3
Isophorone	730	2	2	0	0.576	0.576	Endpoint 3
N-Nitrosodimethylamine	7.3	2	2	0	< 50	< 50	Endpoint 3
N-Nitrosodi-N-Propylamine	0.38	2	2	0	< 50	< 50	Endpoint 3
N-Nitrosodiphenylamine	2.5	2	2	0	6.22	6.22	Endpoint 3
PCBs	0.000019	4	2	0	1.74	1.74	Endpoint 3
Chromium, Total Recoverable	2	5	0	1	6.49	6.49	Endpoint 1
Polynuclear Aromatic Hydrocarbons (PAHs)	0.0088	5	1	0	0.000174	0.000174	Endpoint 1

Table Notes

1. Background (Cs) is zero (0) for all constituents except those with background concentrations specified in Table 3 of the Ocean Plan.
2. Represents the maximum concentration after complete mixing, calculated according to Step 4 of Appendix VI of the Ocean Plan using the permitted dilution ratio (Dm) of 0 as follows: $X\text{-obs} = (C_e + D_m * C_s) / (D_m + 1)$, unless otherwise noted. The calculated maximum concentration is compared to the most stringent water quality objective to determine if effluent limitations are required. Effluent limitations are then calculated as described in Fact Sheet section 4.3.4., below.
3. Represents the one-sided, upper 95% confidence bound for the 95th percentile of the effluent distribution after complete mixing (i.e., the lognormal UCB) calculated per Step 9 of Appendix VI of the Ocean Plan. This was compared to the most stringent water quality objective in lieu of X-obs because 1) X-obs is less than the water quality objective (Step 5), 2) there are three or more detected observations (Step 6), and 3) the data consists entirely of detected values or the data is censored by 80% or less (Steps 7 and 8).
4. PAHs shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo(k)fluoranthene, 1,12-benzoperylene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, fluorene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene.
5. Background (Cs) is zero (0) for all pollutants except those with background concentrations specified in Table 5 of the Ocean Plan.
6. Represents the maximum concentration after complete mixing, calculated according to Step 4 of Appendix VI of the Ocean Plan using the permitted dilution ratio (Dm) of 35 as follows: $X\text{-obs} = (C_e + D_m * C_s) / (D_m + 1)$, unless otherwise noted. The calculated maximum concentration is compared to the most stringent water quality objective to determine if effluent limitations are required. Effluent limitations are then calculated as described in Fact Sheet section 4.3.4, below.
7. RPA Results:
 - Endpoint 1 = An effluent limitation must be developed for the pollutant. Monitoring is required.
 - Endpoint 2 = An effluent limitation is not required for the pollutant. Monitoring may be required as appropriate.
 - Endpoint 3 = RPA is inconclusive. Less than 3 detects or greater than 80% ND.
8. Chronic toxicity units TUc (1TUc =100/NOEC)
9. See section 4.3.6 of the Factsheet for complete reasonable potential analysis of chronic toxicity.

4.3.5. WQBEL Calculations

Based on results of the RPA, performed in accordance with methods of the Ocean Plan for discharges to the Pacific Ocean, the Regional Water Board is establishing WQBELs for arsenic, copper, cadmium, chromium, nickel, zinc, and PAHs for waste seawater effluent at Discharge Point 001.

As described by Section III.C of the Ocean Plan, effluent limits for Table 3 constituents are calculated according to the following equation.

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

Where:

- C_e = the effluent limitation (µg/L)
- C_o = the concentration (the water quality objective) to be met at the completion of initial dilution (µg/L)
- C_s = background seawater concentration (µg/L)
- D_m = minimum probable initial dilution expressed as parts seawater per part wastewater (here, D_m = 0)

For the Facility, the D_m of 0 is retained from Order No. R1-2019-0037, as the Permittee has not initiated a dilution study. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. In accordance with Table 3 implementing procedures, C_s equals zero for all parameters, except the following:

Table F-7. Background Seawater Concentrations – Ocean Plan

Pollutant	Background Seawater Concentration (µg/L)
Arsenic	3
Copper	2
Silver	0.16
Zinc	8

Applicable water quality objectives from Table 3 of the Ocean Plan are as follows.

Table F-8. Water Quality Objectives – Ocean Plan

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum	30-Day Average
Cadmium	µg/L	1	4	10	0
Chromium, Total Recoverable	µg/L	2	8	20	0
Arsenic	µg/L	8	32	80	0
Copper	µg/L	3	12	30	0
Nickel	µg/L	5	20	50	0

Pollutant	Units	6-Month Median	Daily Maximum	Instantaneous Maximum	30-Day Average
Zinc	µg/L	20	80	200	0
Polynuclear Aromatic Hydrocarbons (PAHs)	µg/L	0	0	0	0.0088

Using the equation, $C_e = C_o + D_m (C_o - C_s)$, effluent limitations are calculated as follows. Here, D_m is equal to 0 for each effluent limitation calculation. The effluent limitations established in this Order have been rounded to two significant figures.

Cadmium

$$C_e = 1 + 0 (1 - 0) = 1 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 4 + 0 (4 - 0) = 4 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 10 + 0 (10 - 0) = 10 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

Chromium

$$C_e = 2 + 0 (2 - 0) = 2 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 8 + 0 (8 - 0) = 8 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 20 + 0 (20 - 0) = 20 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

Arsenic

$$C_e = 8 + 0 (8 - 3) = 8 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 32 + 0 (32 - 3) = 32 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 80 + 0 (80 - 3) = 80 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

Copper

$$C_e = 3 + 0 (3 - 2) = 3 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 12 + 0 (12 - 2) = 12 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 30 + 0 (30 - 2) = 30 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

Nickel

$$C_e = 5 + 0 (5 - 0) = 5 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 20 + 0 (20 - 0) = 20 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 50 + 0 (50 - 0) = 50 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

Zinc

$$C_e = 20 + 0 (20 - 8) = 20 \text{ } \mu\text{g/L (6-Month Median)}$$

$$C_e = 80 + 0 (80 - 8) = 80 \text{ } \mu\text{g/L (Daily Maximum)}$$

$$C_e = 200 + 0 (200 - 8) = 200 \text{ } \mu\text{g/L (Instantaneous Maximum)}$$

PAHs

$$C_e = 0.0088 + 0 (0.0088 - 0) = 0.0088 \text{ } \mu\text{g/L (30-Day Average)}$$

4.3.6. **Whole Effluent Toxicity (WET)**

Effluent limitations for whole effluent toxicity protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in effluent. There are two types of WET tests – acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

WET requirements in this Order are derived from the CWA, and the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Plan). The Plan establishes objectives for water quality and sediment quality that apply to all inland surface waters, enclosed bays, and estuaries and coastal lagoons of the state, including both waters of the United States and surface waters of the state. For compliance with the Plan's water quality objective, this Order requires the Permittee to conduct WET testing for chronic toxicity, as specified in the MRP (Attachment E, section 5).

The Permittee conducted chronic toxicity testing using *Macrocystis pyrifera* (Giant Kelp). The following tables summarize the chronic testing results for Monitoring Locations EFF-001, RSW-001B, and REF-001 between October 2020 and December 2024.

Table F-9. Summary of Chronic Toxicity Results for *Macrocystis pyrifera* (Giant Kelp) in Seawater Effluent at Monitoring Location EFF-001

Start Date	Test Endpoint	% Effect	NOEC	TUc
9/2/2020	Germination	76.4	<100	>1.0
9/2/2020	Growth	22.4	<100	>1.0
10/21/2020	Germination	0.8	100	1
10/21/2020	Growth	-0.9	100	1
1/26/2021	Germination	-2.1	100	1
1/26/2021	Growth	-10.5	100	1
4/13/2021	Germination	-9	100	1
4/13/2021	Growth	-6.5	100	1
6/22/2021	Germination	16.9	25	4
6/22/2021	Growth	-3.4	100	1
11/9/2022	Germination	3.1	100	1
11/9/2022	Growth	4.3	100	1
9/27/2023	Germination	24.2	<100	>1.0
9/27/2023	Growth	15.6	<100	>1.0
12/10/2024	Germination	23.9	<100	>1.0
12/10/2024	Growth	13	<100	>1.0

Table F-10. Summary of Chronic Toxicity Results for *Macrocystis pyrifera* (Giant Kelp) at Reference Site at Monitoring Location REF-001

Start Date	Test Endpoint	% Effect	NOEC	TUc (100/NOEC)
10/21/2020	Germination	1.3	100	1
10/21/2020	Growth	-1.9	100	1
10/14/2021	Germination	8.5	<100	>1.0
10/14/2021	Growth	13.7	<100	>1.0
11/9/2022	Germination	-1.3	100	1
11/9/2022	Growth	0	100	1
9/27/2023	Germination	51	<100	>1.0
9/27/2023	Growth	11.4	<100	>1.0
12/10/2024	Germination	29.3	<100	>1.0
12/10/2024	Growth	19.5	<100	>1.0

Table F-11. Summary of Chronic Toxicity Results for *Macrocystis pyrifera* (Giant Kelp) in Receiving Water at Monitoring Location RSW-001B

Start Date	Test Endpoint	% Effect	NOEC	TUc (100/NOEC)
10/21/2020	Germination	4.5	100	1
10/21/2020	Growth	9.1	<100	>1.0
10/14/2021	Germination	15.4	<100	>1.0
10/14/2021	Growth	20.5	<100	>1.0
11/9/2022	Germination	1.5	100	1
11/9/2022	Growth	-6.5	100	1
9/27/2023	Germination	59.2	<100	>1.0
9/27/2023	Growth	26.4	<100	>1.0
12/10/2024	Germination	50.6	<100	>1.0
12/10/2024	Growth	9.9	<100	>1.0

The Ocean Plan establishes a daily maximum chronic toxicity objective of 1.0 $TU_c = 100/NOEC$, using a five-concentration hypothesis test, and a daily maximum acute toxicity objective of 0.3 $TU_a = 100/LC50$, using a point estimate model. The Ocean Plan contains toxicity testing requirements based on minimum initial dilution (D_m) factors in section III.C.4.c. Following the implementation procedures of the Ocean Plan, dischargers with D_m factors that fall below 100:1 are required to conduct chronic toxicity testing. This Order allows for a D_m of 0 for the chronic condition. As shown in Tables F-10 and F-11 of this Fact Sheet, the RPA conducted for the Facility was inconclusive for chronic toxicity (Endpoint 3). In addition, the Ocean Plan, Appendix VI, states, "The Regional Water Board may use an alternative approach for assessing reasonable potential such as an appropriate stochastic dilution model that incorporates both ambient and effluent variability. The permit fact sheet or statement of basis will document the justification or basis for the conclusions of the reasonable potential assessment." As discussed further below, the seawater discharge does not exhibit reasonable potential to cause or contribute to an exceedance of the ocean plan water quality objective of 1 TU_c based on all discharge exceedances of the 1 TU_c water quality objective occurred subsequently with exceedances in both the receiving water and the reference site sample at the time of discharge. As the Facility is a flow through system and intakes seawater of this same quality it has been determined that the facility does not have reasonable potential to cause or contribute to the alteration of natural water quality conditions

This Order does not contain WET limitations; however, in accordance with the terms provided in Attachment A to State Water Board Resolution No. 2011-0049 and the Ocean Plan (section III.C, Implementation Provisions for Table B), this Order establishes chronic monitoring requirements for the commingled discharge of seawater effluent and storm water run-off at Discharge Point 001 and the receiving water at RSW-001 and REF-001. If chronic toxicity results for effluent samples exceed the water quality objective or "trigger," the Permittee must initiate accelerated monitoring as specified in the Monitoring and Reporting Program (Attachment E, section 5). After accelerated monitoring, if conditions of chronic toxicity are found to persist, the Permittee will be required to conduct a Toxicity Reduction Evaluation, as described by the MRP.

Notification requirements for chronic WET testing include a 72 hour verbal notification requirement and a 14 day written report requirement, if test results indicate toxicity. The 14 day written notification is established in the USEPA WET Guidance documents cited in the MRP. The 72 hour verbal notification requirement is being added to provide the Regional Water Board with knowledge of the toxicity in advance of the written report. The 72 hour requirement is intended to give the Permittee sufficient time to make a telephone call to Regional Water Board staff and accounts for non-working days (e.g., weekends). Verbal notification of WET test exceedances may be left

by voice mail if the Regional Water Board staff person is not immediately available by telephone.

4.3.7. **Accelerated Monitoring**

The Permittee shall include reporting regarding compliance with the monitoring requirements MRP section 5.1 and 5.2 by reporting whether the chronic toxicity test “triggered” or “passed” in relation to the chronic toxicity trigger of 1.0 TUc (where TUc =100/NOEC) as a daily maximum. For chronic toxicity reporting, “Triggered” shall be reported when chronic toxicity effluent results trigger accelerated testing by exceeding the chronic toxicity trigger of 1.0 TUc for a single sample. After accelerated monitoring, if conditions of chronic toxicity are found to persist, the Permittee will be required to conduct a TRE, as described in section 5.2 of the MRP.

4.3.8. **Notification Requirements**

Notification requirements for chronic WET testing include a 72-hour verbal notification requirement and a 14-day written report requirement, if test results indicate toxicity. The 14-day written notification is established in the U.S. EPA WET Guidance documents cited in the MRP. The 72-hour verbal notification requirement is being added to provide the Regional Water Board with knowledge of the toxicity in advance of the written report. The 72-hour requirement is intended to give the Permittee sufficient time to make a telephone call to Regional Water Board staff and accounts for non-working days (e.g., weekends). Verbal notification of WET test exceedances may be left by voice mail if the Regional Water Board staff person is not immediately available by telephone.

This Order retains the requirement for the Permittee to conduct a screening test using at least one vertebrate, invertebrate, and plant species. After the screening test is completed, monitoring can be reduced to the most sensitive species.

Chronic WET limitations will be established if future monitoring results demonstrate that discharges from the Facility are causing or contributing to chronic toxicity in the receiving water.

4.4. **Final Effluent Limitation Considerations**

4.4.1. **Anti-Backsliding Requirements**

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where

limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of the effluent limitation for lead, mercury, and bis(2-ethylhexyl)phthalate, explained below.

Order No. R1-2019-0037 established final effluent limitations for lead, mercury, and bis(2-ethylhexyl)phthalate. As shown in Table F-6 of this Fact Sheet, effluent data demonstrate that the discharge no longer demonstrates reasonable potential to cause or contribute to an exceedance of the water quality objective for lead, mercury, and bis(2-ethylhexyl)phthalate. The updated effluent data for lead, mercury, and bis(2-ethylhexyl)phthalate constitutes new information, which permits the removal of effluent limitations consistent with CWA section 402(o)(2)(B). Additionally, for attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy. The Pacific Ocean is considered an attainment water for lead, mercury, and bis(2-ethylhexyl)phthalate because the receiving water is not listed as impaired on the 303(d) list for these constituents. Therefore, the Order does not retain the effluent limitations for lead, mercury, and bis(2-ethylhexyl)phthalate.

4.4.2. **Antidegradation Policies**

Provisions of the Order are consistent with applicable antidegradation policy expressed by State Water Board Resolution No. 68-16 and NPDES regulations at 40 C.F.R. 131.12, which require that water quality be maintained and protected where high quality waters constitute an outstanding National resource, such as waters of National and State parks and wildlife refuges and waters of exceptional recreational or ecological significance. Trinidad Bay, into which the Facility discharges waste seawater and filter backwash is identified in the Ocean Plan as an ASBS. In issuing Resolution No. 2011-0049 approving an exception to the Ocean Plan's prohibition against discharges to ASBSs, the State Water Board stated:

“The State Water Board finds that granting the requested exception will not compromise protection of the ocean waters for beneficial uses, provided that the applicant complies with the prohibitions and special conditions that comprise the Special Protections contained in this resolution...”

“The State Water Board finds that granting the requested exception is in the public interest because the seawater system provides support for the research activities of undergraduate and graduate students with interests in the marine sciences. Research projects are conducted at TML because the laboratory has a seawater system and aquarium facilities that supports the maintenance of living marine plants and animals for observation and experimentation. Often these projects are in direct support of other state or federal agency missions

related to the marine environment and its resources; faculty-sponsored research has been conducted for Redwood National Park, the National Marine Fisheries Service, Resources Legacy Fund, and the National Oceanic and Atmospheric Administration. The exception will allow TML to continue to discharge, provided that TML meets specific mitigating conditions. The exception also provides additional protections for beneficial uses that are not currently provided. The State Water Board has concluded that the exception will not compromise protection of ocean waters for beneficial uses, and the public interest will be served...

“Granting the exception is consistent with federal and state antidegradation policies, in 40 C.F.R. §131.12 and State Water Board Resolution No. 68-16, respectively. The terms, special conditions, and prohibitions that comprise these Special Protections will not authorize a lowering of water quality, but rather will improve water quality conditions in the affected ASBS.”

This Order is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater beyond that which was permitted to discharge in accordance with Order No. R1-2019-0037.

4.4.3. **Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on settleable solids, TSS, 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 section III.B, Table 2, of the Ocean Plan.

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. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 C.F.R. 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.

The Regional Water Board has considered the factors in Water Code section 13263, including the provisions of Water Code section 13241, in establishing these requirements.

4.5. **Interim Effluent Limitations**

This Order does not establish interim effluent limitations or schedules for compliance with final limitations.

4.6. **Land Discharge Specifications**

This Order does not authorize discharges of waste to land.

4.7. **Recycling Specifications – Not Applicable**

This Order does not authorize discharges of recycled water.

5. **RATIONALE FOR RECEIVING WATER LIMITATIONS**

5.1. **Surface Water**

This Order removes generalized receiving water limitations contained in the Permittee’s prior waste discharge requirements that made the Permittee responsible for the quality of the water in the body of water into which the Permittee discharges pollutants, without specifying specific requirements (e.g., effluent limitations) or other actions the Permittee must take that apply at or before the discharge point. The Regional Water Board took this action to address the U.S. Supreme Court’s decision in *City and County of San Francisco, California v. Environmental Protection Agency* (2025) 145 S.Ct. 704, holding that NPDES permits issued by the U.S. EPA may not include end-result requirements—provisions that do not spell out what a permittee must do or refrain from doing; rather, they make a permittee responsible for the quality of the water in the body of water into which the permittee discharges pollutants.²

The Regional Water Board reviewed the remaining permit requirements and concluded that additional requirements were necessary to ensure the discharge satisfies the requirements of CWA section 301(b)(1)(C) (33 U.S.C. § 1311(b)(1)(C)) that the permit include any more stringent limitation, including those necessary to meet water quality standards. Specifically, the board added Discharge Prohibition 3.12 to ensure that the discharge does not have reasonable potential to cause or contribute to exceedance of water quality objectives established in the Ocean Plan. In addition, this Order includes additional monitoring for nitrate, dissolved oxygen, enterococci, fecal coliforms, and total

² While the Regional Water Board removed generalized receiving water limitations in furtherance of the U.S. Supreme Court’s decision interpreting the Clean Water Act’s NPDES requirements, the board may decide in the future to include similar requirements as a matter of state authority.

coliforms at monitoring location EFF-001B and EFF-001D during the term of the order to support a future reasonable potential analysis.

5.2. **Groundwater – Not Applicable**

6. **RATIONALE FOR PROVISIONS**

6.1. **Standard Provisions**

6.1.1. **Federal Standard Provisions**

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D to the Order. The Permittee must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42. The rationale for the special conditions contained in the Order is provided in section 6.2, below.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. 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).

6.1.2. **Regional Water Board Standard Provisions**

In addition to the Federal Standard Provisions (Attachment D), the Permittee shall comply with the Regional Water Board Standard Provisions provided in Standard Provisions 6.1.2 of the Order.

6.1.2.1. Order Provision 6.1.2.1 identifies the state's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations (e.g., 40 C.F.R. sections 122.41(j)(5) and (k)(2)).

6.1.2.2. Order Provision 6.1.2.2 requires the Permittee to notify Regional Water Board staff, orally and in writing, in the event that the Permittee does not comply or will be unable to comply with any Order requirement. This provision requires the Permittee to make direct contact with a Regional Water Board staff person.

6.2. Special Provisions

6.2.1. Reopener Provisions

6.2.1.1. **Standard Revisions (Special Provision 6.3.1.1).** Conditions that necessitate a major modification of a permit are described in 40 C.F.R. section 122.62, which include the following:

6.2.1.1.1. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.

6.2.1.1.2. When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.

6.2.1.2. **Reasonable Potential (Special Provision 6.3.1.2).** This provision allows the Regional Water Board to modify, or revoke and reissue, this Order if present or future investigations demonstrate that the Permittee governed by this Permit is causing or contributing to excursions above any applicable priority pollutant criterion or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

6.2.1.3. **303(d)-Listed Pollutants (Special Provision 6.3.1.3).** This provision allows the Regional Water Board to reopen this Order to modify existing effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

6.2.1.4. **Whole Effluent Toxicity (Special Provision 6.3.1.4).** This Order requires the Permittee to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity through a TRE. This Order may be reopened to include a numeric chronic toxicity limitation, new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.

6.2.1.5. **Regional Monitoring Program (Special Provision 6.3.1.5).** This provision allows the Regional Water Board to reopen this Order to modify existing effluent limitations and/or monitoring requirements that have been established to assess whether the discharge is causing an alteration in the natural ocean water quality. Modification of this Order in this manner is consistent with State Water Board Resolution No. 2011-0049, which states that whether natural ocean water quality is being altered will be determined by a comparing a range of constituent concentrations in reference areas agreed upon via an approved regional monitoring program. This provision is contingent on the development

and approval of a regional monitoring program and on the participation of the Permittee in the program.

6.2.2. **Best Management Practices and Pollution Prevention**

6.2.2.1. **Pollutant Minimization Program (Special Provision 6.3.3.1).** This provision is included in this Order pursuant to section 2.4.5 of the SIP. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a Pollutant Minimization Program when there is evidence that a toxic pollutant is present in the effluent at a concentration greater than an applicable effluent limitation.

6.2.3. **Construction, Operation, and Maintenance Specifications**

6.2.3.1. **Operation and Maintenance (Special Provisions 6.3.4.1 and 6.3.4.2).** 40 C.F.R. section 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Provision 6.3.4.2 of this Order, is an integral part of a well-operated and maintained facility.

6.2.3.2. **Notification of Construction Activity (Special Provision 6.3.3.1).** This provision requires the Permittee to notify the Regional Water Board 180 days prior to construction activity that could result in any new or altered discharge or habitat modification in the Trinidad Head ASBS and is based on conditions required by State Water Board Resolution No. 2011-0049 and section III.E.2 of the Ocean Plan. This provision is necessary to prevent permanent or long-term water quality degradation within the ASBS.

6.2.4. **Special Provisions for Publicly Owned Treatment Works (POTWs) – Not Applicable**

6.2.5. **Other Special Provisions**

6.2.5.1. **Storm Water (Special Provision 6.4.7.1).** This provision requires the Permittee, if applicable, to obtain coverage under the State Water Board's Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (or subsequent renewed versions of the NPDES General Permit CAS000001). Currently, the Facility maintains an approved notice of non-applicability and is exempted from these requirements because all storm water is captured and discharged to a Separate Storm Sewer System that now infiltrates stormwater into inground infiltration basins. City of Trinidad is authorized to discharge under the requirements of the State Water Board's Water Quality Order No. 2013-0001 DWQ, NPDES General Permit No. CAS000004, General Permit for Storm Water Discharges from Small Municipal

Separate Storm Sewer Systems (or subsequent renewed versions of the NPDES General Permit CAS000004), which is not incorporated by reference in this Order.

- 6.2.5.2. **Program for Prevention of Biological Pollutants (Special Provision 6.4.7.2.).** This provision requires the Permittee to implement a program for prevention of biological pollutants (non-native invasive species), in consultation with CDFW Marine Resources Division, and to comply with conditions of State Water Board Resolution No. 2011-0049.
- 6.2.5.3. **Solids Disposal (Special Provision 6.4.7.3.).** This provision requires the Permittee to properly dispose of screenings, sludge, and other solids removed from liquid waste in accordance with the provisions of the Water Code and title 27 of the CCR.
- 6.2.6. **Compliance Schedules – Not Applicable**

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 C.F.R. requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code section 13383 authorizes the Regional Water Board to require technical and monitoring reports. The MRP, Attachment E, establishes monitoring and reporting requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this Facility.

7.1. Influent Monitoring – Not Applicable

7.2. Effluent Monitoring

- 7.2.1. The seawater discharges from the Facility consist mainly of filter backwash. The Permittee is also permitted to discharge waste seawater from the seawater sump and storage tanks, but these are less frequent discharges. Effluent monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established in this Order. Monitoring at Monitoring Locations EFF-001A, EFF-001B, and EFF-001D is necessary to demonstrate compliance with effluent limitations and demonstrate whether or not the discharge poses reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives for discharges to the Pacific Ocean. Monitoring at Monitoring Locations EFF-001A and EFF-001B correspond to the filter backwash monitoring and waste seawater monitoring (sump and storage tank discharges) monitoring, respectively, and Monitoring Location EFF-001D corresponds to commingled seawater and filter backwash

monitoring. All three of these locations represent discharges at Discharge Point 001. Effluent monitoring requirements pursuant to State Water Board Resolution No. 2011-0049 have been included in the MRP.

7.2.1.1. Monitoring Locations EFF-001A (Table E-2)

- 7.2.1.1.1. Consistent with Order No. R1-2019-0037 and pursuant to the terms of State Water Board Resolution No. 2011-0049, this Order retains monitoring requirements for discharges of filter backwash during the dry season (i.e., not commingled with other discharges from the seawater system). The requirements in Table E-2 are intended to address the requirements of Resolution No. 2011-0049 pertaining to minimum monitoring requirements of dry-weather filter backwash events. Note that the dry-weather monitoring requirements may be used to partially satisfy the requirements in Table E-3 (i.e., the Permittee does not have to monitor a filter backwash two times within a dry-weather month).
- 7.2.1.1.2. Effluent monitoring frequencies and sample types for BOD₅, TSS, settleable solids, turbidity, pH, salinity, temperature, arsenic, copper, lead, mercury, nickel, zinc, bis(2-ethylhexyl) phthalate, and PAHs, and Ocean Plan Table 3, constituents for Marine Aquatic Life (with the exceptions that are indicated in Resolution No. 2011-0049), have been retained from Order No. R1-2019-0037, and are consistent with the terms of State Water Board Resolution No. 2011-0049.
- 7.2.1.1.3. Monitoring data collected over the term of Order No. R1-2019-0037 demonstrated that the discharge exhibits reasonable potential to cause or contribute to an exceedance of Ocean Plan water quality objectives for cadmium and chromium to determine compliance with applicable effluent limitations.

7.2.1.2. Monitoring Locations EFF-001B and EFF-001D (Table E-3)

- 7.2.1.3. While State Water Board Resolution No. 2011-0049 requires monitoring *“during a filter backwash event”*; it does not contain minimum frequencies specific to sump or storage tank discharges. Consistent with Order No. R1-2019-0037, this Order requires monitoring during at least one sump discharge event and one seawater tank discharge event, to characterize these waste streams in addition to the filter backwash effluent. Monitoring is not required, if there are no seawater sump or tank dischargers during the permit term.

The requirements, which are presented in Table E-3 of the MRP, apply to all commingled discharges and to discharges of waste seawater from the sump and storage tanks and are necessary to determine compliance with effluent limitations and to demonstrate whether the discharge poses reasonable potential for pollutants to exceed any numeric or narrative water quality

objectives. Parameters were selected based on the reasonable potential determination and to be consistent with requirements for filter backwash discharges contained in Resolution No. 2011-0049. Dry-season monitoring of filter backwash as required in Table E-2 of the MRP may be used to partially satisfy the requirements in Table E-3, however, during the permit term, the Permittee must monitor at least one waste seawater discharge and one sump water discharge, if these discharges occur.

- 7.2.1.4. Effluent monitoring frequencies and sample types for seawater discharge system flow, total monthly seawater volume, TSS, BOD₅, settleable solids, turbidity, pH, salinity, temperature, copper, zinc, arsenic, lead, mercury, nickel, bis(2-ethylhexyl) phthalate, PAHs and Ocean Plan Table 3 constituents for Marine Aquatic Life, have been retained from Order No. R1-2019-0037, and are consistent with the terms of State Water Board Resolution No. 2011-0049.
- 7.2.1.5. Monitoring data collected over the term of Order No. R1-2019-0037 demonstrated that the discharge exhibits reasonable potential to cause or contribute to an exceedance of Ocean Plan water quality objectives for cadmium and chromium. Therefore, this Order establishes new monitoring requirements for cadmium and chromium to determine compliance with applicable effluent limitations.
- 7.2.1.6. This Order establishes additional monitoring for nitrate, dissolved oxygen, enterococci, fecal coliforms, and total coliforms at monitoring location EFF-001B and EFF-001D to support a future reasonable potential analysis due to the removal of generalized receiving water limitations.

7.3. Toxicity Testing Requirements

Whole effluent toxicity (WET) monitoring requirements are established for discharges to the Pacific Ocean from Discharge Point 001 at Monitoring Locations EFF-001A, EFF-001B, and EFF-001D, and for the receiving water at Monitoring Locations REF-001 and RSW-001B, and are included in the Order to protect the receiving water quality from the aggregate effect of a mixture of pollutants in the effluent. Acute toxicity testing measures mortality in 100 percent effluent over a short test period and chronic toxicity testing is conducted over a longer time period and may measure mortality, reproduction, and/or growth. The Ocean Plan (section III.C.4.c.(4)) requires only chronic testing where the minimum initial dilution of the effluent is below 100:1. Because this Order does not allow for any dilution (Dm of 0) for the Facility, WET monitoring shall consist of chronic toxicity testing. This Order includes monitoring requirements for chronic toxicity to assess whether there is reasonable potential to exceed the Ocean Plan's narrative water quality objectives for toxicity. Consistent with Order No. R1-2019-0037, this Order requires annual chronic toxicity testing at Monitoring Locations EFF-001A and RSW-001B, and semiannual chronic toxicity testing at Monitoring Location REF-001, twice per permit term testing at Monitoring Location EFF-001B and EFF-

001D (if the Permittee discharges from these locations). In accordance with State Water Board Resolution No. 2011-0049, the Regional Water Board may adjust the frequency of certain toxicity testing requirements after the first year of monitoring.

In addition to routine toxicity monitoring, this Order requires the Permittee to maintain and update their TRE Work Plan, in accordance with appropriate U.S. EPA guidance to ensure that the Permittee has a plan to immediately move forward with the initial tiers of a TRE in the event effluent toxicity is encountered in the future. The TRE is initiated by evidence of a pattern of toxicity demonstrated through the additional effluent monitoring provided as a result of an accelerated monitoring program.

7.4. Receiving Water Monitoring

7.4.1. Surface Water Monitoring

7.4.1.1. Monitoring Location REF-001 (Table E-4)

7.4.1.1.1. Monitoring frequencies and sample types for BOD₅, salinity, temperature, Ocean Plan Table 2 constituents, Ocean Plan Table 3 constituents for Marine Aquatic Life (except acute toxicity), total coliform bacteria, *Enterococcus*, and fecal coliform bacteria have been retained from Order No. R1-2019-0037 and are consistent with the terms of State Water Board Resolution No. 2011-0049.

7.4.1.1.2. This Order establishes additional monitoring for nitrate at monitoring location REF-001 to support a future reasonable potential analysis due to the removal of generalized receiving water limitations.

7.4.1.2. Monitoring Locations RSW-001A and RSW-001B (Tables E-6 and E-7)

7.4.1.2.1. Pre- and post-storm monitoring frequencies and sample types for BOD₅, salinity, temperature, Ocean Plan Table 2 constituents, Ocean Plan Table 3 constituents for Marine Aquatic Life (except acute toxicity), total coliform bacteria, *Enterococcus*, and fecal coliform bacteria have been retained from Order No. R1-2019-0037 and are consistent with the terms of State Water Board Resolution No. 2011-0049.

7.4.1.2.2. Pre- and post-seawater discharge monitoring frequencies and sample types for TSS and settleable solids have been retained from Order No. R1-2019-0037.

7.4.1.2.3. This Order establishes additional monitoring for nitrate at monitoring location RSW-001A and RSW-001B to support a future reasonable potential analysis due to the removal of generalized receiving water limitations.

7.4.1.3. Groundwater Discharge Monitoring Requirements – Not Applicable

This Order does not require groundwater monitoring at this time.

7.5. Other Monitoring Requirements

- 7.5.1. **Flow Monitoring (MRP Section 1.4).** The MRP requires proper installation, calibration, operation, and maintenance of flow metering devices.
- 7.5.2. **Minimum Levels (ML) and Reporting Levels (RL) (MRP section 1.5).** In August 2014, U.S. EPA finalized minor amendments to the CWA to require NPDES permittees to use sufficiently sensitive analytical test methods for NPDES permit applications and reporting. This amendment, known as the “sufficiently sensitive methods rule”, clarifies that where U.S. EPA has promulgated or otherwise approved analytical methods under 40 CFR Part 136, or 40 CFR Chapter I, subchapters N and O, permittees must use “sufficiently sensitive methods” that are capable of detecting and measuring pollutants at, or below, the applicable water quality criteria or permit limits.
- 7.5.3. Regional Water Board staff reviewed data collected during the previous permit term and identified 25 Ocean Plan Table 3 pollutants that were not analyzed using sufficiently sensitive methods. These pollutants have been identified in Attachment F (RPA Summary) so that the Permittee is aware of this matter and can make appropriate changes to ensure that monitoring data collected during the term of this Order is analyzed using sufficiently sensitive methods.
- 7.5.4. **Discharge Monitoring Report Quality Assurance (DMR-QA) Study Program (MRP section 1.6.)**
- 7.5.5. Under the authority of section 308 of the CWA (33 U.S.C. § 1318), U.S. EPA requires major and select 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 U.S. EPA 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 U.S. EPA’s DMR-QA Coordinator and Quality Assurance Manager.

- 7.5.6. **Accelerated Monitoring Requirements (MRP section 4.).** Tables E-2 and E-4 include accelerated monitoring requirements for parameters that have effluent limitations specified in Table 4 of the Order.
- 7.5.7. **Rocky Intertidal Marine Life Survey (MRP section 9.1.).** Consistent with Order No. R1-2019-0037, and pursuant to State Water Board Resolution No. 2011-0049, this Order requires the Permittee to conduct a survey of rocky intertidal marine life, once during the term of this Order. Alternatively, the Permittee may participate in a State Water Board approved regional monitoring program to meet the rocky intertidal marine life survey requirements of Resolution No. 2011-0049.
- 7.5.8. **Bioaccumulation Study (MRP section 9.2.).** Consistent with Order No. R1-2019-0037, and pursuant to State Water Board Resolution No. 2011-0049, this Order requires the Permittee to conduct a bioaccumulation study once during the term of this Order. Alternatively, the Permittee may participate in a State Water Board approved regional monitoring program to meet the bioaccumulation study requirements of Resolution No. 2011-0049.
- 7.5.9. **Sediment Monitoring/Study (MRP section 9.3.).** Consistent with Order No. R1-2019-0037, and pursuant to State Water Board Resolution No. 2011-0049, this Order requires the Permittee to conduct a sediment monitoring study, annually during the term of this Order. Alternatively, the Permittee may participate in a State Water Board approved regional monitoring program to meet the sediment monitoring study requirements of Resolution No. 2011-0049.
- 7.5.10. **Chemical Drug Use (MRP section 9.4.).** Consistent with Order No. R1-2019-0037, this Order requires the Permittee to report on the chemicals and drugs used for disease control, disinfection, and health maintenance at the Facility, annually during the term of this Order.
- 7.5.11. **Spill Notification (MRP Section 10.5.).** The MRP that is part of this Order establishes requirements for reporting spills and unauthorized discharges.

8. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (North Coast Regional Water Board) has considered the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the California State Polytechnic University, Humboldt, Telonicher Marine Laboratory. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

8.1. Notification of Interested Parties

The Regional Water Board notified the Permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting on the Notification was provided through the following posting on the [Regional Water Board's site](https://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs/) (https://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs/).

The public had access to the agenda and any changes in dates and locations through the [Regional Water Board's site](https://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs/) (https://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs/).

8.2. Written Comments

Interested persons were invited to submit written comments concerning these tentative WDRs as provided through the notification process. Comments were due to the Regional Water Board Executive Office electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DCD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the [Regional Water Board website](https://www.waterboards.ca.gov/northcoast/) (<https://www.waterboards.ca.gov/northcoast/>).

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on **February 9, 2026**.

8.3. Public Hearing

The Regional Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: **May 7, 2026**
Time: 9:00 a.m. or as announced in the Regional Water Board's agenda
Location: Regional Water Board Hearing Room
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

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

Please be aware that dates and venues may change. On the [Regional Water Board website](https://www.waterboards.ca.gov/northcoast/) (https://www.waterboards.ca.gov/northcoast/) you can access the current agenda for changes in dates and locations.

8.4. **Reconsideration of Waste Discharge Requirements**

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

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

Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see the [Water Quality Petitions Website](http://www.waterboards.ca.gov/public_notices/petitions/waterquality/wqpetition_instr.shtml) (http://www.waterboards.ca.gov/public_notices/petitions/waterquality/wqpetition_instr.shtml)

8.5. **Information and Copying**

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

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 Regional 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 Justin McSmith at Justin.McSmith@waterboards.gov or (707) -576-2082.

Table F-13. RPA Summary

Constituent Name	Units	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Arsenic	µg/L	3.45	5	0	8	3	9.853	1
Cadmium	µg/L	0.577	5	0	1	0	4.93	1
Copper	µg/L	7.75	5	0	3	2	7.75	1
Lead	µg/L	0.576	5	0	2	0	0.576	2
Mercury	µg/L	0.014	5	1	0.04	0.0005	0.014	2
Nickel	µg/L	< 50	5	0	5	0	< 50	1
Selenium	µg/L	0.347	5	0	15	0	0.347	2
Silver	µg/L	0.531	5	0	0.7	0.16	0.531	2
Zinc	µg/L	24.5	5	0	20	8	24.5	1
Ammonia (as N)	µg/L	0.185	5	0	600	0	0.185	2
Antimony	µg/L	0.185	5	1	1200	0	17.43	2
Bis(2-chloroethoxy) methane	µg/L	0.577	2	2	4.4	0	0.577	3
Bis(2-chloroisopropyl) ether	µg/L	0.577	2	2	1200	0	0.577	3
Chlorobenzene	µg/L	6.49	8	8	570	0	6.49	3

Constituent Name	Units	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Dichlorobenzenes	µg/L	< 1	6	6	5100	0	< 1	3
Fluoranthene	µg/L	< 1	10	10	15	0	< 1	3
Hexachlorocyclopentadiene	µg/L	< 50	2	2	58	0	< 50	3
Nitrobenzene	µg/L	< 50	2	2	4.9	0	< 50	3
Thallium	µg/L	0.046	5	1	2	0	0.046	2
Toluene	µg/L	46	4	4	85000	0	46	3
Benzidine	µg/L	< 1	4	4	0.000069	0	< 1	3
Beryllium	µg/L	0.026	5	3	0.033	0	0.026	3
Bis(2-chloroethyl) Ether	µg/L	0.577	2	2	0.045	0	0.577	3
Bis(2-ethylhexyl) Phthalate	µg/L	0.577	3	0	3.5	0	0.577	2
1,4-Dichlorobenzene	µg/L	< 50	2	2	18	0	< 50	3
2,4-Dinitrotoluene	µg/L	< 50	2	2	2.6	0	< 50	3
Hexachlorobutadiene	µg/L	< 50	2	2	14	0	< 50	3
Hexachloroethane	µg/L	< 1	2	2	2.5	0	< 1	3

Constituent Name	Units	MEC ¹	No. Samples	No. ND ²	Co ³	Cs ⁴	X-obs ⁵	Endpoint ⁶
Isophorone	µg/L	0.576	2	2	730	0	0.576	3
N-Nitrosodimethylamine	µg/L	< 50	2	2	7.3	0	< 50	3
N-Nitrosodi-N-Propylamine	µg/L	< 50	2	2	0.38	0	< 50	3
N-Nitrosodiphenylamine	µg/L	6.22	2	2	2.5	0	6.22	3
PCBs	µg/L	<0.0020	4	2	0.000019	0	<0.0020	3
Chromium, Total Recoverable	µg/L	6.49	5	0	2	1	6.49	1
Polynuclear Aromatic Hydrocarbons (PAHs)	µg/L	0.000174	5	1	0.0088	0	0.000174	1

Table Notes

1. MEC = Maximum Effluent Concentration
2. ND = Non-Detects
3. Co = The concentration (water quality objective) to be met at the completion of initial dilution (from Table 1 of the 2015 Ocean Plan).
4. Cs = The background seawater concentrations (From Table 3 of the 2015 Ocean Plan).
5. X-obs = The maximum input data after complete mixing or the LogNormal upper confidence bound (UCB) of the population percentile after complete mixing, when data are Lognormally distributed.
6. Endpoint 1 – There is “reasonable potential,” and a WQBEL and monitoring are required.
 Endpoint 2 – There is “no reasonable potential.” WQBELs are not required, and monitoring is required at the discretion of the Regional Water Board.
 Endpoint 3 – The Ocean Plan RPA is inconclusive. Existing WQBELs are retained, and monitoring is required.