CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
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Los Angeles Regional Water Quality Control Board
(http://www.waterboards.ca.gov/losangeles)

WATER QUALITY ORDER R4-2022-0162
NPDES NUMBER CA0064969, CI NUMBER 10626

WASTE DISCHARGE REQUIREMENTS
FOR URCHINOMICS USA INC., CHANNEL ISLANDS URCHIN CO. LLC

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

Table 1. Discharger Information

Discharger:	Urchinomics USA Inc.
Name of Facility:	Channel Islands Urchin Co. LLC
Facility Address:	452 Lighthouse Circle Drive Port Hueneme, CA 93041 Ventura County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Aquaculture Wastewater (sea water)	34.1449º	-119.2105º	Port Hueneme

Table 3. Administrative Information

This Order was adopted on:	**April 14, 2022**
This Order shall become effective on:	**June 1, 2022**
This Order shall expire on:	**May 31, 2027**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**180 days prior to the Order expiration date**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	**Minor**

I, Renee Purdy, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **the date indicated above**.

R Purdy

Digitally signed by R Purdy
Date: 2022.05.13 08:48:27 -07'00'

Water Boards

Renee Purdy, Executive Officer

TABLE OF CONTENTS

TABLE OF TABLES

TABLE OF ATTACHMENTS

1. FACILITY INFORMATION

Information describing the Channel Islands Urchin Co. LLC Facility (Facility) is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles 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 serves as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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

2.3. **Notification of Interested Parties.** The Los Angeles Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.4. **Consideration of Public Comment.** The Los Angeles 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 in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger is authorized to discharge from the identified facility into waters of the United States and shall comply with the requirements in this Order.

3. DISCHARGE PROHIBITIONS

3.1. Wastes discharged shall be limited to 1.44 million gallons per day (MGD) of aquaculture wastewater (i.e., seawater) via Discharge Point 001.

3.2. The discharge of wastewater at a location other than specifically described in this Order is prohibited. The discharge of wastes from accidental spills or other sources is prohibited unless expressly authorized in Attachment D of this Order.

3.3. Discharges of water, materials, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to

a storm drain system, Port Hueneme, or other waters of the United States, are prohibited.

3.4. The treatment or the discharge of wastes from the Facility shall not cause pollution, contamination, or nuisance as defined by section 13050 of the Water Code.

3.5. The discharge of any substances in concentrations toxic to human, animal, plant, or aquatic life is prohibited.

3.6. The discharge of oil or any residuary product of petroleum to waters of the United States, except in accordance with waste discharge requirements or other provisions of division 7 of the Water Code, is prohibited.

3.7. The discharge of any radiological, chemical, or biological warfare agent into the waters of the United States is prohibited under Water Code section 13375.

3.8. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to surface waters is prohibited, unless specifically authorized elsewhere in this permit.

3.9. The discharge of trash to surface waters or the deposition of trash where it may be discharged into surface waters is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.1. Effluent Limitations – Discharge Point 001

4.1.1. Final Effluent Limitations – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations in Table 4 at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations

Parameter	Units	Average Monthly	Maximum Daily	Notes
Biochemical Oxygen Demand (BOD_5@20°C)	mg/L	20	30	---
$BOD_5$20°C	lbs/day	240	360	---
Oil and Grease	mg/L	10	15	---
Oil and Grease	lbs/day	120	180	---
pH	standard units	---	6.5 Min 8.5 Max	b
Total Suspended Solids (TSS)	mg/L	50	75	---
TSS	lbs/day	600	900	---
Settleable Solids	ml/L	0.1	0.3	---
Ammonia Nitrogen, Total (as N)	mg/L	0.42	1.3	c

Parameter	Units	Average Monthly	Maximum Daily	Notes
Ammonia Nitrogen, Total (as N)	lbs/day	5	15.6	c
Chronic Toxicity	Pass or Fail, % Effect	Pass	Pass or % Effect<50	d
Temperature	ºF	---	86	e
Total Residual Chlorine	mg/L	---	0.1	c
Total Residual Chlorine	lbs/day	---	1.2	c
Turbidity	NTU	50	75	---
Copper, TR	µg/L	2.9	5.8	c
Copper, TR	lbs/day	0.035	0.070	c
Silver, TR	µg/L	1.1	2.2	c
Silver, TR	lbs/day	0.013	0.026	c
Cyanide, Total (as CN)	µg/L	0.5	1.0	c
Cyanide, Total (as CN)	lbs/day	0.006	0.012	c

Footnotes for Table 4

a. The mass-based effluent limitations are based on the plant design flow rate of 1.44 MGD and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

b. The effluent limitations for pH are 6.5 as an Instantaneous minimum and 8.5 as an Instantaneous maximum.

c. Intake water credits are included for ammonia, total residual chlorine, copper, silver, or cyanide as follows:

1. If the influent water pollutant concentration (measured at the influent to the Harbor) does not exceed the average monthly limitation then the limitations are applied as noted in Table 4.
2. If the influent water pollutant concentration exceeds the average monthly limitation but does not exceed the maximum daily limitation then compliance with the average monthly limitation will be determined based on intake water credits and compliance with the maximum daily limitation is applied as noted in Table 4.
3. If the influent water pollutant concentration exceeds the maximum daily limitation then compliance with both the average monthly and the maximum daily limitation will be determined based on intake water credits.

d. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the MMEL shall be reported as “Pass” or “Fail.” The Maximum Daily Effluent Limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect.” During a calendar month, up to three independent toxicity tests are required for routine monitoring when one toxicity test results in “Fail”.

e. The effluent limitation for temperature is 86ºF as an Instantaneous maximum. Additionally, the maximum temperature of waste discharges shall not exceed the natural temperature of the receiving waters by more than 20 ºF.

End of Footnotes for Table 4

b. The Enterococcus concentration in the effluent shall not exceed a six-week rolling geometric mean of 30 colony forming units (CFU) or most probable number (MPN) per 100 milliliter (mL), calculated weekly, with a statistical threshold value (STV) of 110

CFU or MPN per 100 mL. The STV shall not be exceed by more than 10 percent of the samples collected in a calendar month.

4.1.2. **Interim Effluent Limitations – Not Applicable**

4.2. **Land Discharge Specifications – Not Applicable**

4.3. **Recycling Specifications - Not Applicable**

5. RECEIVING WATER LIMITATIONS

5.1. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan. The discharge shall not cause the following in the Port Hueneme Harbor:

5.1.1. The pH of the receiving water shall not be depressed below 6.5 or raised above 8.5 as a result of the discharges. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge. Natural conditions shall be determined on a case-by-case basis.

5.1.2. The Enterococcus concentration shall not exceed a six-week rolling geometric mean of 30 colony forming units (CFU) or most probable number (MPN) per 100 milliliter (mL), calculated weekly, with a statistical threshold value (STV) of 110 CFU or MPN per 100 mL, as a result of wastes discharged. The STV shall not be exceed by more than 10 percent of the sample collected in a calendar month.

5.1.3. The mean annual dissolved oxygen concentration shall not fall below 7.0 mg/L. No single determination of dissolved oxygen shall be less than 5.0 mg/L except when natural conditions cause lesser concentrations.

5.1.4. Total ammonia (as N) concentrations shall not exceed the four-day average concentration of unionized ammonia of 0.035 mg/L and the one-hour average concentration of 0.233 mg/L.

5.1.5. The wastes discharged shall not result in visible floating particulates including deposited macroscopic particulate matter deposited macroscopic particulate matter, foams, or oil and grease in the receiving waters.

5.1.6. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity shall not exceed the following limits:

a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.

b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%

5.1.7. Waters shall not contain suspended or settleable materials, chemical substances, or pesticides in amounts that cause nuisance or adversely affect any designated beneficial use.

5.1.8. Waters shall not contain toxic or other deleterious substances in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or

waterfowl or render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

5.1.9. Toxic pollutants shall not be present at levels that will cause accumulation of bottom deposits or aquatic growths.

5.1.10. Waters shall not contain biostimulatory substances at concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

5.1.11. Waters shall be free of substances that result in increases of BOD that adversely affect beneficial uses.

5.1.12. Waters shall not contain taste or odor-producing substances in concentrations that alter the natural taste, odor, and/or color of fish, shellfish, or other edible aquatic resources.

5.1.13. The wastes shall not cause damage, discolor, nor cause formation of sludge deposits on flood control structures or facilities nor overload the design capacity.

5.1.14. The wastes shall not cause the degradation of surface water communities and populations including vertebrate, invertebrate, and plant species.

5.1.15. The wastes shall not cause problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

5.1.16. The wastes shall not cause the creation of nuisance conditions, or adversely affect beneficial uses of the receiving water.

5.2. **Groundwater Limitations – Not Applicable**

6. PROVISIONS

6.1. Standard Provisions

6.1.1. The Discharger shall comply with all Standard Provisions included in Attachment D.

6.1.2. The Discharger shall comply with the following provisions. If there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of wastewater and stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with NPDES permits issued by the Los Angeles Water Board to local agencies.

b. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 318, 405, and 423 of the federal CWA and amendments thereto.

c. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable, they do not legalize this waste disposal facility, and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

d. Oil or oily material, chemicals, refuse, or other wastes that constitute a condition of pollution or nuisance shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

e. A copy of these waste discharge requirements shall be maintained at the discharge facility so as to be available at all times to operating personnel.

f. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the Los Angeles Water Board of such change 30 days prior to taking effect and shall notify the succeeding owner or operator of the existence of this Order by letter, copy of which shall be forwarded to the Los Angeles Water Board.

g. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not staffed at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

h. The Discharger shall file with the Los Angeles Water Board a report of waste discharge at least 120 days before making any material change or proposed change in the character, location, or volume of the discharge.

i. Violation of any of the provisions of this Order may subject the violator to any of the civil liability or penalties described herein, or any combination thereof, at the discretion of the prosecuting authority, except that only one kind of liability or penalty may be applied for each kind of violation.

j. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to the planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include.

   i. Name and general composition of the chemical,
   ii. Frequency of use,
   iii. Quantities to be used,
   iv. Proposed discharge concentrations, and
   v. U.S. EPA registration number, if applicable

k. The Discharger shall make diligent, protective efforts to reduce Facility infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, wildfires, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.

l. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Discharger to administrative or civil liabilities, civil or criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

m. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Los Angeles Water Board by telephone at (213) 576-6616 or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Los Angeles Water Board within five days, unless the Los Angeles Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to NPDES No. CA0064696, CI-10626 to losangeles@waterboards.ca.gov**.** Other noncompliance requires written notification as above at the time of the normal monitoring report.

n. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

o. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties to which the Discharger is or may be subject to under section 311 of the CWA.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. Reopener Provisions

a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;
ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination does not stay any condition of this Order.

b. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the federal CWA, and amendments

thereto, the Los Angeles Water Board may revise and modify this Order in accordance with such more stringent standards.

c. This Order may be reopened to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis (RPA).

d. This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 to 124, to include new minimum levels (MLs).

e. This Order may be reopened and modified to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption or revision of a TMDL for Port Hueneme Harbor.

f. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation and issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

g. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Los Angeles Water Board may institute proceedings under these regulations to modify or revoke and reissue the Orders to conform to the toxic effluent standard or prohibition.

h. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to incorporate all elements contained in the State Water Board adopted Toxicity Plan promptly after U.S. EPA-approval of such Plan to be consistent with the State Water Board precedential decisions, new policies, a new state-wide plan, new laws, or new regulations.

i. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, new state-wide plans, new laws, or new regulations.

6.3.2. **Special Studies, Technical Papers and Additional Monitoring Requirements Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan**

The Discharger shall submit to the Los Angeles Water Board shall develop an Initial Investigation TRE workplan (1-2 pages) within 90 days of the effective date of this permit. This plan shall describe the steps the permittee intends to

follow in the event that toxicity is detected. See section 5 of the Monitoring and Reporting Program (Attachment E) for an overview of TRE requirements.

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

The Discharger shall submit to the Los Angeles Water Board, within 90 days of the effective date of this Order:

a. **Best Management Practice Plan (BMPP)** that will be implemented to reduce the discharge of pollutants to the receiving water. The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material and trash from being discharged to waters of the State. The BMPP shall include plans and procedures for each of the following:

i. Solids control. The permittee must:

a. Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.

b. In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system.

c. Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except in cases where the permitting authority authorizes such discharge in order to benefit the aquatic environment.

ii. Materials storage. The permittee must:

a. Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides or feed to waters of the U.S.

b. Implement procedures for properly containing, cleaning, and disposing of any spilled material.

iii. Structural maintenance. The permittee must:

a. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.

b. Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

iv. Recordkeeping. The permittee must:

a. In order to calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals.

b. Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

v. Training. The permittee must:

a. In order to ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.

b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

In particular a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material and trash discharge to surface waters.

b. **Spill Contingency Plan (SCP)** that shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site.

Each plan shall cover all areas of the Facility and shall include a drainage map for the Facility. The Discharger shall identify on a map of appropriate scale the areas that contribute runoff to the permitted discharge point; describe the activities in each area and the potential for contamination of stormwater runoff and the discharge of hazardous waste/material; and address the feasibility of containment and/or treatment of stormwater. These plans shall be reviewed annually. The revised plans shall be submitted **within 30 days** of revision, if revisions have made to these plans.

The Discharger shall implement the BMPP and SCP (or SPCC) within 10 days of the approval by the Executive Officer or **no later than 90 days** after submission to the Los Angeles Water Board, whichever comes first.

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

The Discharger shall at all times properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.

a. **Climate Change Effects Vulnerability Assessment and Mitigation Plan**. The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfire, or other climate-related changes. The Discharger shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, and beneficial uses. For facilities that discharge to the

ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due **12 months** after the effective date of this Order.

6.3.5. **Compliance Schedules – Not Applicable**

7. COMPLIANCE DETERMINATION

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

7.1. Single Constituent Effluent Limitation

If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML) (see Reporting Requirement 1.9 of the MRP), then the Discharger is out of compliance.

7.2. Effluent Limitations Expressed as a Sum of Several Constituents

If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, constituents reported as ND or DNQ are treated as having concentrations equal to zero, provided that the applicable ML is used.

7.3. Effluent Limitations Expressed as a Median

In determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

7.3.1. If the number of measurements (n) is odd, then the median will be calculated as

$=X_{(n+1)/2}$

7.3.2. If the number of measurements (n) is even, then the median will be calculated as

$= [X_{n/2} + X_{(n/2)+1}]/2$,, i.e. the midpoint between the n/2 and n/2+1 data points.

7.4. Multiple Sample Data

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger 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 Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

7.4.1. 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.

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

7.5. **Average Monthly Effluent Limitation (AMEL)**

If the average (or when applicable, the median determined by subsection 7.3 and 7.4 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 for the purpose of calculating mandatory minimum penalties, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month)) for the purpose of calculating discretionary administrative civil liabilities. However, an alleged violation of the AMEL will be considered one violation for the purpose of assessing mandatory minimum penalties. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. If multiple samples are taken the Discharger will only be considered out of compliance for days when the discharge occurs. For anyone calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

In determining compliance with the AMEL, the following provisions shall also apply to all constituents:

7.5.1. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for that constituent, the Discharger has demonstrated compliance with the AMEL for each day of the month for that parameter.

7.5.2. If the analytical result of a single sample monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any constituent, the Discharger shall collect four additional samples at approximately equal intervals during the same calendar month. All five analytical results shall be reported in the monitoring report for that month, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported ML (see Reporting Requirement 1.10 of the MRP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement I.I of the MRP), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

7.5.3. In the event of noncompliance with an AMEL, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

7.5.4. If only one sample was obtained for the month or more than a monthly period and the result exceeds the AMEL; then the Discharger is in violation of the AMEL.

7.6. **Maximum Daily Effluent Limitation (MDEL)**

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

7.7. **Instantaneous Minimum Effluent Limitation**

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

7.8. **Instantaneous Maximum Effluent Limitation**

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

7.9. **Median Monthly Effluent Limitation (MMEL)**

If the median of daily discharges over a calendar month exceeds the MMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). However, an alleged violation of the MMEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is taken over a calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

7.10. **Chronic Toxicity**

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (IWC) response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.” The relative “Percent Effect” at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate

observations - in the case of Whole Effluent Toxicity (WET), only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”)). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in “Fail” and the “Percent Effect” is ≥ 50.

The Median Monthly Effluent Limitation (MMEL) for chronic toxicity is exceeded and a violation will be flagged when the median of no more than three independent chronic toxicity tests conducted within the same calendar month—analyzed using the TST statistical approach—results in “Fail”. The MMEL for chronic toxicity shall only apply when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

The chronic toxicity MDEL and MMEL are set at the IWC for the discharge (100% effluent) and expressed in units of the TST statistical approach (“Pass” or “Fail”, “Percent Effect”). All NPDES effluent compliance monitoring for the chronic toxicity MDEL and MMEL shall be reported using only the 100% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using a multi-concentration test design when required by Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (U.S. EPA 2002, EPA-821-R-02-013). The Los Angeles Water Board’s review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at 4.3.6.f). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the U.S. EPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observable Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Los Angeles Water Board (40 CFR section 122.41(h)). The Los Angeles Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Permittee, the U.S. EPA, the State Water Board’s Quality Assurance Officer, or the State Water Board’s Environmental Laboratory Accreditation Program (ELAP) as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

7.11. **Mass and Concentration Limitations**

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration

of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

7.12. **Bacterial Standards and Analysis**

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

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

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

For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.

Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved by U.S. EPA pursuant to 40 CFR part 136, or improved methods have been determined by the Executive Officer and/or U.S. EPA.

ATTACHMENT A – DEFINITIONS

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: Arithmetic mean (μ) = the sum of the measured ambient water concentrations divided by 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.

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.

Biosolids
Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 CFR Part 503.

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

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.

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.

Dilution Credit
Dilution Credit is 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.

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.

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

Estuaries
Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters included, but are not limited to, the Sacramento-San Joaquin Delta, as defined in Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

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).

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 middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the n/2 and n/2+1).

Method Detection Limit (MDL)
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 CFR 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.

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

PCBs (polychlorinated biphenyls) as Aroclors
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.

PCBs as Congeners
The sum of the following 41 individually quantified PCB congeners or mixtures of isomers of a single congeners in a co-elution: PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

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 Los Angeles 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 Los Angeles Water Board.

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

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Los Angeles Water Board Basin Plan.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows: Standard Deviation $(\alpha) = \sum(x-\mu)^2/(n-1)^{0.5}$, where: x is the observed value; μ is the arithmetic mean of the observed values; and n is the number of samples.

Statistical Threshold Value (STV)
The STV for the bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

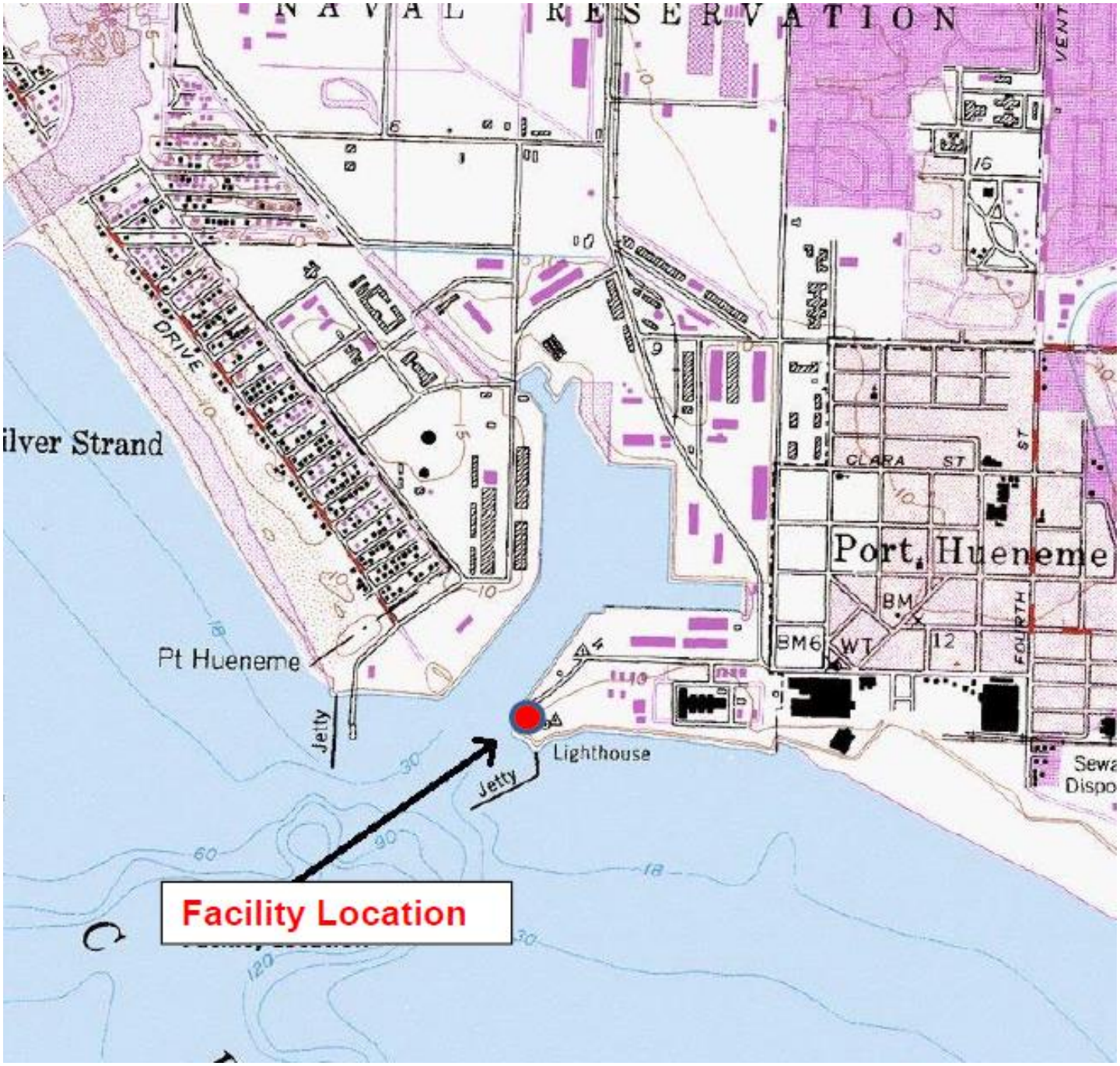
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first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

ACRONYMS AND ABBREVIATIONS

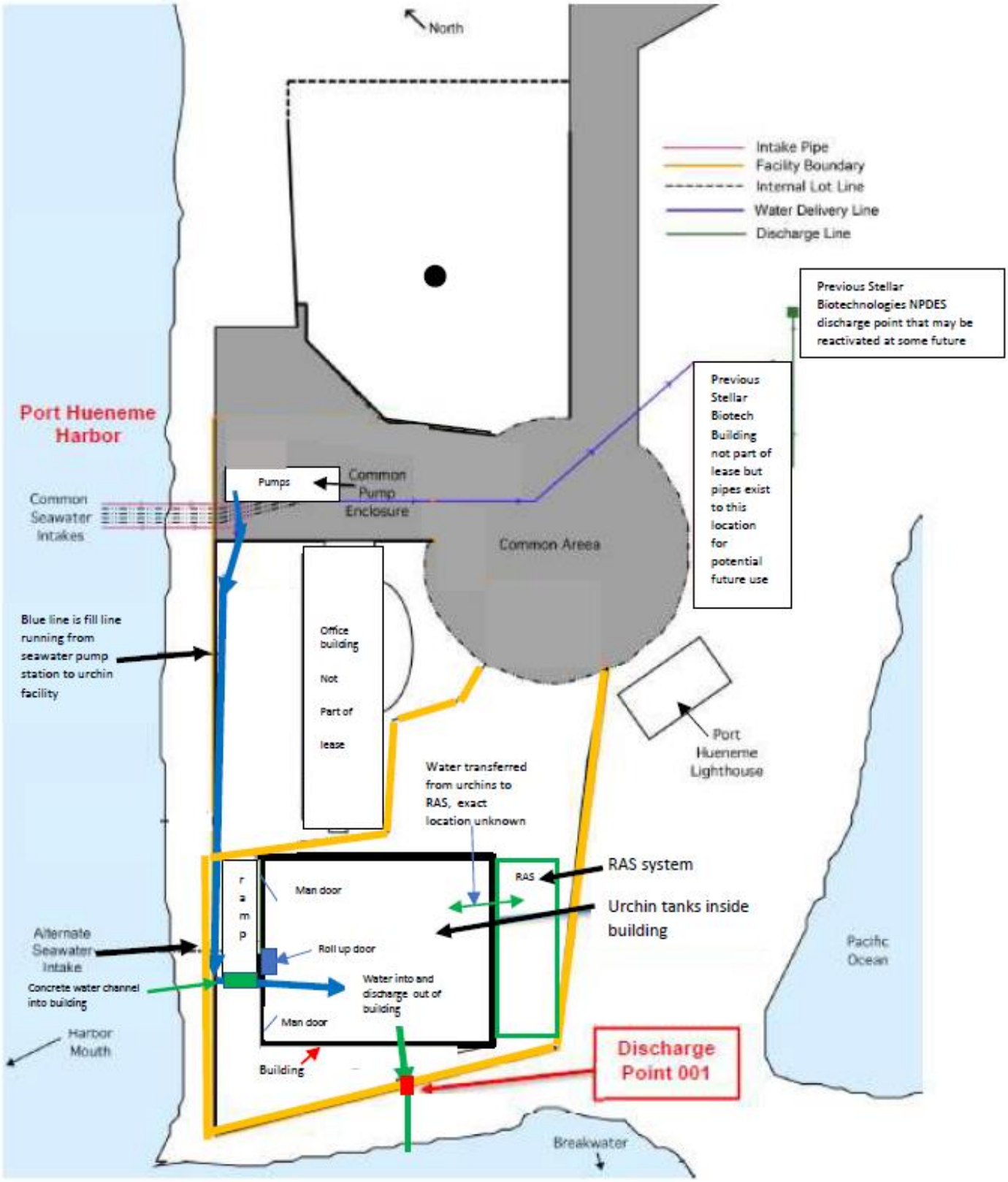
AMEL	Average Monthly Effluent Limit
B	Background Concentration
BAT	Best Available Technology Economically Achievable
Basin Plan	Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMPPP	Best Management Practices Plan
BPJ	Best Professional Judgment
BOD	Biochemical Oxygen Demand 5-day @ 20°C
BPT	Best Practicable Treatment Control Technology
C	Water Quality Objective
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CTR	California Toxics Rule
CV	Coefficient of Variation
CWA	Clean Water Act
CWC	California Water Code
DDT	Dichlorodiphenyltrichloroethane
DMR	Discharge Monitoring Report
DNQ	Detected But Not Quantified
ELAP	State Water Resources Control Board, Drinking Water Division, Environmental Laboratory Accreditation Program
ELG	Effluent Limitations, Guidelines and Standards
gpd	gallons per day
IC	Inhibition Coefficient
LA	Load Allocations
LOEC	Lowest Observed Effect Concentration
µg/L	micrograms per Liter
mg/L	milligrams per Liter
MDEL	Maximum Daily Effluent Limitation
MMEL	Median Monthly Effluent Limitation
MEC	Maximum Effluent Concentration
MGD	Million Gallons Per Day
ML	Minimum Level
MPN	Most Probable Number
MRP	Monitoring and Reporting Program
ng/L	nanograms per liter
ND	Not Detected
NOEC	No Observable Effect Concentration
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
NTR	National Toxics Rule

OAL	Office of Administrative Law
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California*
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated biphenyls
PMEL	Proposed Maximum Daily Effluent Limitation
PMP	Pollutant Minimization Plan
POTW	Publicly Owned Treatment Works
ppt	parts per thousand
QA	Quality Assurance
QA/QC	Quality Assurance/Quality Control
RPA	Reasonable Potential Analysis
SCP	Spill Contingency Plan
SIP	State Implementation Policy (Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California)
SMR	Self-Monitoring Reports
State Water Board	California State Water Resources Control Board
TAC	Test Acceptability Criteria
TBEL	Technology-based Effluent Limitation
Thermal Plan	Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSD	Technical Support Document
TST	Test of Significant Toxicity
TSS	Total Suspended Solid
TUc	Chronic Toxicity Unit
U.S.EPA	United States Environmental Protection Agency
WDR	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WLA	Wasteload allocations
WQBELs	Water Quality-Based Effluent Limitations
WQS	Water Quality Standards
%	Percent

ATTACHMENT B – MAP OF FACILITY AND SURROUNDING AREA



ATTACHMENT C – SITE PLAN AND FLOW SCHEMATIC



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

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

1.1.2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense

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

1.3. Duty to Mitigate

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

1.4. Proper Operation and Maintenance

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

1.5. Property Rights

1.5.1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)

1.5.2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

1.6. Inspection and Entry

The Discharger shall allow the Los Angeles 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. § 1318(a)(B); 40 CFR § 122.41(i); CWC, §§ 13267, 13383):

1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(i); 40 CFR § 122.41(i)(1); CWC, §§ 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. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(2); CWC, §§ 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. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(3); CWC, §§ 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. § 1318(a)(B); 40 CFR § 122.41(i)(4); CWC, §§ 13267, 13383.)

1.7. **Bypass**

1.7.1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)

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

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

1.7.3. **Prohibition of bypass.** Bypass is prohibited, and the Los Angeles Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

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

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of

reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Los Angeles Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

1.7.4. The Los Angeles Water Board may approve an anticipated bypass, after considering its adverse effects, if the Los Angeles Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance 1.7.3 above. (40 CFR § 122.41(m)(4)(ii).)

1.7.5. **Notice**

a. **Anticipated bypass.** If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. **Unanticipated bypass.** The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. **Upset**

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1).)

1.8.1. **Effect of an upset.** An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).)

1.8.2 **Conditions necessary for a demonstration of upset.** A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)

1.8.3**. Burden of proof.** In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General

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

2.2. Duty to Reapply

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

2.3. Transfers

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

3. STANDARD PROVISIONS – MONITORING

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

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

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is

high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

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

4. STANDARD PROVISIONS – RECORDS

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

4.2. **Records of monitoring information shall include:**

4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

4.3. **Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):**

4.3.1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. **Duty to Provide Information**

The Discharger shall furnish to the Los Angeles Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Los Angeles 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 Discharger shall also furnish to the Los

Angeles Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); CWC, §§ 13267, 13383.)

5.2. **Signatory and Certification Requirements**

5.2.1. All applications, reports, or information submitted to the Los Angeles 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 CFR § 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., Los Angeles Administrators of U.S. EPA). (40 CFR § 122.22(a)(3).).

5.2.3. All reports required by this Order and other information requested by the Los Angeles 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:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 CFR § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

c. The written authorization is submitted to the Los Angeles Water Board and State Water Board. (40 CFR § 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 Los Angeles Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the

information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR § 122.22(e).)

5.3. **Monitoring Reports**

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 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 Los Angeles Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Los Angeles Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)

5.3.4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

5.4. **Compliance Schedules**

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

5.5. **Twenty-Four Hour Reporting**

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

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

As of December 21, 2023, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i).)

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

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

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

5.5.3. The Los Angeles Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B).)

5.6. **Planned Changes**

The Discharger shall give notice to the Los Angeles Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

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

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)

5.7. **Anticipated Noncompliance**

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

5.8. **Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports

are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7).)

5.9. **Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Los Angeles Water Board, State Water Board, or U.S. EPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8).)

5.10. **Initial Recipient for Electronic Reporting Data**

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). 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 CFR section 127.2(c)]. U.S. EPA will update and maintain this listing. (40 CFR § 122.41(l)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

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

6.2. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who *knowingly* violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows

at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions (40 CFR § 122.41(a)(2); CWC section 13385 and 13387).

6.3. Any person may be assessed an administrative penalty by the Administrator of U.S. EPA, the Los Angeles Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 (40 CFR § 122.41(a)(3)).

6.4. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. (40 CFR § 122.41(j)(5)).

6.5. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both. (40 CFR § 122.41(k)(2)).

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. **Non-Municipal Facilities**

Existing manufacturing, commercial, mining, and silvicultural Dischargers shall notify the Los Angeles Water Board as soon as they know or have reason to believe (40 CFR § 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 CFR section 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 CFR section 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR section 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR section 122.42(a)(1)(iii)); or

d. The level established by the Los Angeles Water Board in accordance with section 122.44(f). (40 CFR section 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 CFR section 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 CFR section 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 CFR section 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR section 122.42(a)(2)(iii)); or

d. The level established by the Los Angeles Water Board in accordance with section 122.44(f). (40 CFR section 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (CI NO. 10626)

TABLE OF CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Section 308(a) of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) section 13383 also authorizes the Los Angeles Water Board to establish monitoring, 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. An effluent sampling station shall be established for Discharge Point 001 and shall be located where representative samples of effluent can be obtained.

1.2. Effluent samples shall be taken downstream of any addition to treatment works and prior to mixing with the receiving waters.

1.3 The Los Angeles Water Board shall be notified in writing of any change in the sampling stations once established or in the methods for determining the quantities of pollutants in the individual waste streams**.**

1.4 Pollutants shall be analyzed using the analytical methods described in 40 CFR parts 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or the State Water Resources Control Board (State Water Board).

1.5. **Laboratory Certification.** Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Resources Control Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) in accordance with CWC 13176 and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Los Angeles Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.

1.6. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All QA/QC analyses must be run on the same dates that samples are analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Los Angeles Water Board. Proper chain of custody procedures must be followed, and a copy of that documentation shall be submitted with the quarterly report.

1.7 The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to ensure accuracy of measurements or shall ensure that both equipment activities will be conducted.

1.8. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (U.S. EPA) guidelines, or in the MRP, the constituent or parameter analyzed, and the method or procedure used must be specified in the monitoring report.

1.9. Each monitoring report must affirm in writing that "*all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board,*

Division of Drinking Water, or approved by the Executive Officer and in accordance with current U.S. EPA guideline procedures or as specified in this Monitoring and Reporting Program."

1.10. The monitoring report shall specify the U.S. EPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Resources Control Board (State Water Board) in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (State Implementation Policy or SIP),* February 9, 2005, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported ML.

1.11. The Discharger shall select the analytical method that provides an ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section 1.11 below. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.

1.12. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section 1.11 below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

1.13. In accordance with section 2.4.3 of the SIP, the Los Angeles Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the Discharger's permit in any of the following situations:

1.13.1. When the pollutant under consideration is not included in Appendix 4, SIP;

1.13.2. When the Discharger and the Los Angeles Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;

1.13.3. When the Discharger agrees to use an ML that is lower than those listed in Appendix 4;

1.13.4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,

1.13.5. When the Discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are U.S. EPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Los Angeles Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.

If there is any conflict between foregoing provisions and the SIP, the provisions stated in the SIP (section 2.4) shall prevail.

1.14. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any effluent, or receiving water constituent more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with limitations set forth in this Order.

1.15. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 1 to 1000 per 100 ml for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

1.16. In the event stormwater or spills in the areas permitted by this Order are transported to a different disposal site during the reporting period, the following shall be reported in the monitoring report:

1.16.1. Type of stormwater and spilled wastes and quantity of each;

1.16.2. Name and address for each hauler of wastes (or method of transport if other than by hauling); and

1.16.3. Location of the final point(s) of disposal for each type of waste.

If no stormwater or spilled wastes are transported off-site during the reporting period, a statement to that effect shall be submitted.

1.17. Each monitoring report shall state whether or not there was any change in the discharge as described in the Order during the reporting period.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	INF-001	A location at the intake water supply line where a representative source water (sea water) prior to any influent treatment and introduction to the aquaculture system can be obtained.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
		Latitude 34.1456º, Longitude -119.2105º
001	EFF-001	A location where a representative sample of treated effluent can be obtained from Discharge Point 001 prior to discharge to the Port Hueneme Harbor. Latitude: 34.1449°, Longitude: -119.2105º
---	RSW-001	A location where a representative sample of the receiving water can be obtained outside of the influence of the discharge. Latitude 34.1456º, Longitude -119.2105º

The latitude and longitude information in Table E-1 are approximate for administrative purposes. The monitoring station location is the same for influent and receiving water monitoring. See Attachment C for a map including the monitoring station (Discharge Point 001).

3. **INFLUENT MONITORING REQUIREMENTS**

The Discharger shall monitor intake water to the Facility at Monitoring Location INF-001, as follows:

Table E-2. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Ammonia Nitrogen, Total (as N)	mg/L	Grab	2/Quarter	a and b
pH	pH unit	Grab	2/Quarter	a and b
Temperature	°F	Grab	2/Quarter	a and b
Total Residual Chlorine	mg/L	Grab	2/Quarter	a and b
Copper, TR	mg/L	Grab	2/Quarter	a and b
Silver, TR	mg/L	Grab	2/Quarter	a and b
Cyanide, Total (as CN)	mg/L	Grab	2/Quarter	a and b

Footnotes for Table E-2

a. Two influent samples shall be collected and should be representative of the intake water for the period sampled. The first influent sample shall be collected 2 hours prior to the effluent sample. The second influent sample shall be collected at approximately the same time as the effluent sample.
b. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; for priority pollutants, the methods must meet the lowest MLs specified in Appendix 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by the Los Angeles Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select a sufficiently sensitive method from the listed methods and corresponding ML necessary to demonstrate compliance with applicable effluent limitations.

End of Footnotes for Table E-2

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Monitoring Location EFF-001

The Discharger shall monitor the aquaculture wastewater (i.e. seawater) at Monitoring Location EFF-001 as follows:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Flow	MGD	Meter	Daily	a
pH	standard unit	Grab	1/Week	b
Temperature	ºF	Grab	1/Week	b
Biochemical Oxygen Demand @20°C ($BOD_5$20ºC)	mg/L and lbs/day	Grab	1/Quarter	b and c
Oil and Grease	mg/L and lbs/day	Grab	1/Quarter	b and c
Total Suspended Solids (TSS)	mg/L and lbs/day	Grab	1/Quarter	b and c
Turbidity	NTU	Grab	1/Quarter	b
Settleable Solids	ml/L	Grab	1/Quarter	b
Dissolved Oxygen	mg/L	Grab	1/Quarter	b
Ammonia Nitrogen, Total (as N)	mg/L and lbs/day	Grab	1/Quarter	b and c
Nitrate Nitrogen, Total (as N)	mg/L	Grab	1/Quarter	b
Nitrite Nitrogen, Total (as N)	mg/L	Grab	1/Quarter	b
Total Residual Chlorine	mg/L	Grab	1/Quarter	b
Enterococcus	CFU or MPN/100 mL	Grab	8/year	d and e
Copper, TR	µg/L and lbs/day	Grab	1/Quarter	b and c
Silver, TR	µg/L and lbs/day	Grab	1/Quarter	b and c
Cyanide, Total (as CN)	µg/L and lbs/day	Grab	1/Quarter	b and c
Chronic Toxicity	Pass or Fail	Grab	1/Year	f

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
	and % Effect (TST)			
TCDD Equivalents	pg/L	Grab	1/Permit Term	b and g
Remaining Priority Pollutants	µg/L	Grab	1/Year	b, h and i

Footnotes for Table E-3

a. Total waste flow will indicate the volume of water (in gallons) discharged. The Discharger shall also calculate the daily average flow for each discharge event by dividing the total discharge flow by the number of days over which the discharge occurred; this shall represent the daily average flow (MGD). Periods of no flow shall also be reported.
b. Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; for priority pollutants, the methods must meet the lowest MLs specified in Appendix 4 of the SIP. Where no methods are specified for a given pollutant, the methods must be approved by the Los Angeles Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select a sufficiently sensitive method from the listed methods and corresponding ML necessary to demonstrate compliance with applicable effluent limitations.
c. The mass emission (lbs/day) for the discharge shall be calculated and reported using the reported concentration and the actual flow rate measured at the time of discharge, using the formula:
   Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day
d. For each annual sampling event, 8 consecutive weekly samples shall be collected and the results shall be used to calculate the 6-week rolling geometric mean. Sampling is only required during weeks in which discharge occurs from the Facility. The 6-week rolling geometric mean shall be calculated each week for enterococci using results from samples collected during the 8-week period ending on that week. Regardless of whether there are sufficient samples to calculate the geometric mean, the weekly results shall be reported in the corresponding quarterly monitoring report.
e. Detection methods used for Enterococcus shall be those presented in Table 1A of 40 CFR Part 136, unless alternate methods have been approved by U.S. EPA pursuant to Part 136 or improved methods have been determined by the Executive Officer and/or U.S. EPA.
f. Refer to section 5 below, Chronic Whole Effluent Toxicity Testing Requirements.
g. TCDD equivalents shall be calculated using the following formula, where the minimum levels (MLs) and toxicity equivalency factors (TEFs) are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the MLs to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners. The TCDD Equivalents are calculated as follows: Dioxin-TEQ (TCDD equivalents) = Sum of Concentration of dioxin or furan congener$_x$ (C_x) X Toxicity Equivalency Factors (TEFs) for congener$_x$. The TEFs are listed in the Table below.

Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

h. Mercury shall be analyzed using EPA method 1631E, per 40 CFR part 136.

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

End of Footnotes for Table E-3

5. CHRONIC WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

The chronic toxicity IWC for this discharge is 100 percent effluent.

5.2. Sample Volume and Holding Time

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

5.3. Chronic Marine and Estuarine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity ≥1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples—at the in-stream waste concentration 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 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.

- A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01).
- 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 red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).
- A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

5.4. Species Sensitivity Screening

Species sensitivity screening shall be conducted monthly for a period of three months during this Order's first required sample collection. During each month, the Discharger shall collect a single effluent sample and concurrently conduct three toxicity tests, using the fish, an invertebrate, and the alga species as previously referenced. The species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine annual monitoring during the permit cycle.

Rescreening is required at least once per five (5) years. The Discharger shall rescreen with the three species listed above and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suit of tests. If a different species is the most sensitive, or if there is ambiguity, then the Discharger shall proceed with suites of screening tests using enough collected effluent for a minimum of three, but not to exceed five suites.

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

5.5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manuals previous referenced. Additional requirements are specified below.

5.5.1. The discharge is subject to a determination of "Pass" or "Fail" and "Percent Effect" from a single-effluent concentration chronic toxicity test at the discharge IWC using the Test of Significant Toxicity (TST) approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity/Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (H_o) for the TST approach is: Mean discharge IWC response ≤0.75 x Mean control response. A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response-Mean discharge IWC response) ÷ Mean control response)) x 100.

5.5.2. The median monthly effluent limit (MMEL) for chronic toxicity only applies when there is a discharge more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests are required when one toxicity test results in “Fail”.

5.5.3 If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, then the Discharger must re-sample and re-test at the subsequent discharge event.

5.5.4. 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.

5.5.5. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.). Monthly reference toxicant testing is sufficient.

5.5.6. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rational is explained in the Fact Sheet (Attachment F).

5.6. Preparation of an Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a copy of the Discharger’s initial investigation TRE work plan to the Executive Officer of the Los Angeles Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use U.S. EPA manual EPA/833B-99/002 (municipal) as guidance, or most current version, or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, April 1989*). This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the work plan shall include:

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

5.7. Accelerated Monitoring Schedule for Maximum Daily Single Result: “Fail and % Effect ≥50.”

The Maximum Daily single result of “Fail” and % Effect ≥ 50 shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result and is still discharging, the Discharger shall implement an accelerated monitoring schedule within five calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of five accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of a five concentration dilution series which includes the control with five dilutions, one of which must be the IWC. As long as there is a continued discharge, this testing shall be repeated up to a maximum of four times, conducted at approximately two-week intervals; in preparation for the TRE process and associated reporting. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") and the percent effect for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

5.8. Toxicity Reduction Evaluation (TRE) Process

If one of the accelerated toxicity tests results in "Fail", the Discharger shall immediately implement the TRE Process conditions set forth below. During the TRE process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

5.8.1. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, U.S. EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, April 1989) and, within 30 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:

- Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
- Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
- A schedule for these actions, progress reports, and the final report.

5.8.2. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, U.S. EPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Chronic TIE Manual: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (*EPA/600/6-91/005F, 1992); *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.

5.8.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and stormwater control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

5.8.4. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE process is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

5.8.5. The Los Angeles Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

5.8.6. The Board may consider the results of any TIE/TRE studies in an enforcement action.

5.9. Reporting

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

5.9.1 The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-5.

5.9.2. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

5.9.3. The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1

5.9.4. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

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

5.9.6. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Los Angeles Water Board Chief Deputy Executive Officer or the Executive Officer.

5.9.7. The receiving water and influent water monitoring data shall be reported individually and consistent with the requirements outlined.

5.10. Ammonia Removal

Except with prior approval from the Executive Officer of the Los Angeles Water Board ammonia shall not be removed from bioassay samples. The Discharger 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 other toxicants before the Executive Officer would allow for control of pH in the test.

a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

b. Chronic ammonia concentration in the effluent are greater than 4 mg/L total ammonia.

c. Conduct graduated pH tests as specified in the TIE methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite-treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

When is has been demonstrated that toxicity is due to ammonia because of increasing pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Los Angeles Water Board, and receiving written permission expressing approval from the Executive Officer of the Los Angeles Water Board.

6. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

7. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

8. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall monitor the Port Hueneme Harbor at Monitoring Location RSW-001 as follows:

Table E-4. Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Ammonia Nitrogen, Total (as N)	mg/L	Grab	1/Quarter	a and b
pH (Note b)	standard units	Grab	1/Quarter	a and b
Salinity (Note b)	ppt	Grab	1/Quarter	a and b
Temperature (Note b)	ºF	Grab	1/Quarter	a and b
Dissolved Oxygen	mg/L	Grab	1/Quarter	a and b
Enterococcus	CFU or MPN/100 ml	Grab	8/Year	c and d
TCDD Equivalents	pg/L	Grab	1/Permit Term	e
Total Residual Chlorine	mg/L	Grab	1/Quarter	b
Copper, TR	µg/L	Grab	1/Quarter	b
Silver, TR	µg/L	Grab	1/Quarter	b
Cyanide, TR	µg/L	Grab	1/Quarter	b
Remaining Priority Pollutants	µg/L	Grab	1/Year	b and f

Footnotes to Table E-4

a. Receiving water ammonia, pH, salinity, temperature, and dissolved oxygen must be analyzed at the same time the samples are collected for priority pollutant analysis.

b. Pollutants shall be analyzed using the analytical methods described in 40 CFR section 136; for priority pollutants the methods must meet the lowest minimum levels (MLs) specified in Appendix 4 of the SIP. If no methods are specified for a given pollutant, it shall be analyzed by methods approved by the Los Angeles Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML.

c. For each annual sampling event, 8 consecutive weekly samples shall be collected and the results shall be used to calculate the 6-week rolling geometric mean. Sampling is only required during weeks in which discharge occurs from the Facility. The 6-week rolling geometric mean shall be calculated each week for enterococci using results from samples collected during the 8-week period ending on that week. Regardless of whether there are sufficient samples to calculate the geometric mean, the weekly results shall be reported in the corresponding quarterly monitoring report.

d. Detection methods used for Enterococcus shall be those presented in Table 1A of 40 CFR Part 136, unless alternate methods have been approved by U.S. EPA pursuant to Part 136 or improved methods have been determined by the Executive Officer and/or U.S. EPA.

e. TCDD equivalents shall be calculated using the following formula, where the MLs and TEFs are as listed in the Table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the MLs to zero. U.S. EPA method 1613 may be used to analyze dioxin and furan congeners. The TCDD equivalents are calculated as follows: Dioxin-TEQ (TCDD

equivalents) = Sum of Concentration of dioxin or furan congener$_x$ (C_x) x Toxicity Equivalency Factors (TEFs) for congener$_x$. The TEFs are listed in the Table Below.

Toxicity Equivalency Factors

Congeners	Minimum Levels (pg/L)	Toxicity Equivalence Factor (TEF)
2,3,7,8 - tetra CDD	10	1.0
1,2,3,7,8 - penta CDD	50	1.0
1,2,3,4,7,8 - hexa CDD	50	0.1
1,2,3,6,7,8 - hexa CDD	50	0.1
1,2,3,7,8,9 - hexa CDD	50	0.1
1,2,3,4,6,7,8 - hepta CDD	50	0.01
Octa CDD	100	0.0001
2,3,7,8 - tetra CDF	10	0.1
1,2,3,7,8 - penta CDF	50	0.05
2,3,4,7,8 - penta CDF	50	0.5
1,2,3,4,7,8 - hexa CDF	50	0.1
1,2,3,6,7,8 - hexa CDF	50	0.1
1,2,3,7,8,9 - hexa CDF	50	0.1
2,3,4,6,7,8 - hexa CDF	50	0.1
1,2,3,4,6,7,8 - hepta CDFs	50	0.01
1,2,3,4,7,8,9 - hepta CDFs	50	0.01
Octa CDF	100	0.0001

f. Priority Pollutants are defined at 40 CFR Part 131 or the CTR. Annual samples shall be collected during the first hour of discharge from the first storm event of the year. If, for safety reasons, a sample cannot be obtained during the first hour of discharge, then a sample shall be obtained, at first safe opportunity and the reason for the delay shall be included in the report.

End of Footnotes to Table E-4

9. OTHER MONITORING REQUIREMENTS

9.1. Visual Observation

9.1.1. A visual observation station shall be established in the vicinity of the discharge point to the receiving water, Port Hueneme Harbor.

9.1.2. General observations of the receiving water shall be made at each discharge point on at least one storm event per month that produces a stormwater discharge from the facility that lasts continuously for more than one hour or intermittently for more than a total of 3 hours in a 12 hour period. All receiving water observations shall be reported in the semiannual monitoring report. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations shall be made:

a. Time, and date of monitoring
b. Weather conditions
c. Color of water

d. Appearance of oil films or grease, or floatable materials
e. Extent of visual turbidity or color patches
f. Direction of flow
g. Description of odor, if any, of the receiving water
h. Presence and activity of California Least Tern and California Brown Pelican.

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

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

10.1.2. If there is no discharge during any reporting period, the Discharger shall indicate under the statement of perjury that no effluent was discharged to surface water during the reporting period in the corresponding monitoring report.

10.1.3. If the Discharger monitors (other than for process/operational control, startup, research, or equipment testing) any influent, effluent, or receiving water constituent more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with this Order/Permit.

10.1.4. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.

10.1.5. The Discharger shall inform the Los Angeles Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

10.1.6. The Discharger shall report the results of chronic toxicity testing, TRE and TIE as required in the Attachment E, Monitoring and Reporting, section 5.

10.2. Self-Monitoring Reports (SMRs)

10.2.1. The Discharger 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>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger 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 Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-5. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Once per Day	Sunday following permit effective date or on permit effective date if on a Sunday	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	May 1 August 1 November 1 February 1
Once per Week	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	Sunday through Saturday	May 1 August 1 November 1 February 1
Once per Quarter	Permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 1 August 1 November 1 February 1
Once per Year	Permit effective date	January 1 through December 31	Submit with corresponding quarterly SMR due on February 1
Once per Permit term	Permit effective date	During the term of this Order	Submit with corresponding quarterly SMR.

10.2.4. **Reporting Protocols.** The Discharger 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 CFR part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

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

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

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

10.2.5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Los Angeles Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

10.2.6. **Multiple Sample Data.** When determining compliance with an Average Monthly Effluent Limitation (AMEL), Average Weekly Effluent Limitation (AWEL)**,** or Maximum Daily Effluent Limitation (MDEL) for priority pollutants and more than one sample result is available, the Discharger 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 Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

10.2.7. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is

not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

10.3. Discharge Monitoring Reports (DMRs)

DMRs are U.S. EPA reporting requirements. Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at:
http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring

10.4. Other Reports

10.4.1. Within 90 days of the effective date of this permit, the Discharger is required to submit the following to the Los Angeles Water Board:

a. Initial Investigation TRE workplan.

b. BMPP

c. Spill Control Plan (SCP) or SPCC Plan

The BMPP and SCP shall be reviewed at a minimum once per year and updated as needed to ensure all actual or potential sources of trash and pollutants discharged from the Facility are addressed. All changes or revisions to the BMPP and SCP shall be submitted to the Los Angeles Water Board within 30 days of revisions.

10.4.4. **Climate Change Effects Vulnerability Assessment and Mitigation Plan** Within 12 months from the effective date of this Order, the Discharger is required to submit a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change related-effects associated with the facility operation, water supplies, collection system, water quality and beneficial uses.

ATTACHMENT F – FACT SHEET

TABLE OF CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

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

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4A565022003
Discharger	Urchinomics USA Inc.
Name of Facility	Channel Islands Urchin Co. LLC
Facility Address	452 Lighthouse Circle Drive Port Hueneme, CA 93041 Ventura County
Facility Contact, Title and Phone	Peter Struffenegger, Director of Operations, (916) 548-4350
Authorized Person to Sign and Submit Reports	Peter Struffenegger, Director of Operations, (916) 548-4350
Mailing Address	PO Box 11, Port Hueneme, CA 93044
Billing Address	PO Box 11, Port Hueneme, CA 93044
Type of Facility	Aquaculture
Major or Minor Facility	Minor
Threat to Water Quality	3
Complexity	C
Pretreatment Program	N/A
Recycling Requirements	N/A
Facility Permitted Flow	1.44 million gallons per day (MGD)
Facility Design Flow	1.44 MGD
Watershed	Ventura County Coastal
Receiving Water	Port Hueneme Harbor
Receiving Water Type	Coastal

1.1. Urchinomics USA, Inc. (Discharger) is the operator of Channel Islands Urchin Co. LLC, (Facility), an aquaculture facility. The Port of Hueneme owns the property at 452 Lighthouse Circle Drive, Port Hueneme, CA 93041 on which the Facility is located.

For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

1.2. The Facility discharges aquaculture wastewater (i.e. seawater) to the Port Hueneme Harbor, a water of the United States. This is the first National Pollutant Discharge Elimination System (NPDES) permit for the Discharger. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

1.3 The Discharger filed a report of waste discharge (ROWD) and applied for issuance of its Waste Discharge Requirements (WDRs) and NPDES permit on August 13, 2021. Additional information was submitted on August 23, 2021 and August 28, 2021. The application was deemed complete on September 1, 2021. A site visit was conducted on September 14, 2021.

1.4. Federal regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to 40 CFR section 122.6(d)(1) and California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

2. FACILITY DESCRIPTION

The Discharger owns and operates a flow-through aquaculture facility for the cultivation of harvested *Strongylocentrotus purpuratus*, purple sea urchin. The Facility is located at 452 Lighthouse Circle Drive, Port Hueneme, California, on land that is owned by the Port of Hueneme. The Facility was previously owned and operated by Stellar Biotechnologies and was regulated by Order No. R4-2017-0121 (NPDES) Permit No. CA0063070), adopted by the Los Angeles Water Board on June 1, 2017. This Order was terminated on April 9, 2020 after abandonment of the Facility by the previous owner. The Discharger, under a new ownership and a new facility name, will utilize existing onsite infrastructure, including six heavy-gage epoxy-coated steel pipe sleeves, a discharge structure and, a building to house raceways. The re-opening of this Facility will neither involve any construction activities nor new treatment/operational process installation. Therefore, this is not a new source. There are two additional intake pipe sleeves that are damaged. The Discharger may remove and replace these to use as the primary intake if needed.

The Facility is an aquaculture facility that houses marine organisms. The Facility operations generate waste that typically includes unused food and urchin excrement. The purple sea urchin is decimating kelp fields along the Pacific Coast. The Discharger will contract divers to remove empty urchin from the kelp bed, move them to the Facility, and feed them a proprietary diet in order to grow their gonads, a sellable product. The Facility produces 250,000 pounds of aquatic animals per year in a recirculating system that has flow-through capability. The Recirculation Aquaculture System (RAS) is used to

control the environmental conditions of the urchins. A prototype test facility has been established and consists of 32 raceways holding approximately 200-300 gallons of water each. The wastewater produced during prototype testing is collected and disposed of offsite. If the prototype testing is successful, the Facility will scale up to a maximum of 200 raceways for commercial sale of purple urchin.

2.1. Description of Wastewater and Biosolids Treatment or Controls

The RAS is supplied with ambient seawater from Port Hueneme Harbor. Seawater is pumped from an in-ocean intake structure. The intake structure is fitted with a screen to prevent aquatic life from entering the system and consists of six heavy gage epoxy-coated steel pipe sleeves anchored above and below water level with concrete abutments and extending 75-feet horizontally to a depth of 10 feet. The seawater is monitored for temperature and dissolved oxygen daily and pH weekly prior to entering the RAS. The water passes through basket strainers to remove large debris before being pumped to the RAS. It flows over a flowmeter and on to the RAS for distribution to the raceways containing the urchins. The RAS consists of a drum filter to remove particulates down to 30-60 microns, a biological filter that converts ammonia into nitrates, and UV sterilization. In the event that the biological filter fails, water from the port will be used for the entire system and a flow-through situation will be initiated. The flow through situation will remain in place until the bacteria filter is reinoculated and sufficiently repopulated. Sea urchins have low metabolic activity, any ammonia produced will be addressed by the flow through system to minimize any build-up of additional ammonia in the system. After the biological filter, the water is then disinfected using ultraviolet treatment, temperature controlled using a water chiller, and a protein skimmer is used to remove dissolved proteins. Air is added for aeration and carbon dioxide stripping before the water is routed back into the raceways.

Water replacement occurs continuously and the 5-10% of the total volume of the system is replaced daily. The makeup water is trickled in and passes through the RAS and any excess is discharged back into the Harbor after passing through the RAS. Wastewater from the urchin cultivation operation is passed through the RAS system for treatment before being discharged to the Port Hueneme Harbor.

In the event of natural or unnatural occurrences that cause seawater from the port to be unsuitable for the urchins, the system will run on total recirculation and feeding will stop. If these occurrences last for any significant duration of time, alternate sources of fresh seawater will be sourced from other locations and trucked in to replenish the water within the system to allow for urchin feeding and discharge to resume. Backup generators will be employed to provide backup sources of electricity to keep the system running in the event of line power interruption.

2.2. Discharge Points and Receiving Waters

The Facility discharges up to 1.44 MGD of aquaculture wastewater (i.e. seawater) to Port Hueneme Harbor, a water of the United States, via Discharge Point 001. Discharge Point is located at Latitude: 34.1449° and Longitude: -119.2105º.

2.3. **Summary of Existing Requirements and SMR Data – Not Applicable**

2.4. **Compliance Summary – Not Applicable**

2.5. **Planned Changes**

The Discharger does not anticipate any changes to their discharge during the term of this Order. The Facility is permitted to the full scale commercial Facility, including discharges up to 1.44 MGD, a maximum harvestable weight of purple sea urchin of 250,000 lbs., and a commercial raceway maximum total volume of 75,000 gallons. The Facility will begin its production from 32 raceways and will increase commercial production to the full scale of 200 raceways after protype testing is complete.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. **Legal Authorities**

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

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

This Facility is an existing source with a change of ownership. Under Water Code section 13389, this action to adopt an NPDES permit is exempt from CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

3.3.1. **Water Quality Control Plan.** The Water Quality Control Plan for the Los Angeles Region (Basin Plan) designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. Beneficial uses applicable to Port Hueneme Harbor are as follows:

Table F-2. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Port Hueneme Harbor	Existing: Industrial process supply (PROC), navigation (NAV), commercial and sport fishing (COMM); water contact recreation (REC-1), non-contact water recreation (REC-2); marine habitat (MAR); wildlife habitat (WILD)

3.3.2. **Enclosed Bays and Estuaries Policy.** The *Water Quality Control Policy for the Enclosed Bays and Estuaries of California* (Enclosed Bay and Estuaries Policy), adopted by the State Water Board as Resolution No. 95-84 on November 16, 1995, states that:

"It is the policy of the State Water Board that the discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries, other than the San Francisco Bay-Delta system, shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Water Board only when the Regional Water Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge."

While the Facility discharges to Port Hueneme Harbor, discharges from the Facility are comprised only of aquaculture wastewater (i.e. seawater). The influent seawater withdrawn from Port Hueneme Harbor is filtered and disinfected prior to its use for the cultivation of *Strongylocentrotus purpuratus* (purple sea urchin), and there is no addition of chemicals to the seawater throughout the cultivation process. The Facility's RAS treats the effluent prior to discharge. Effluent monitoring data has shown that all parameters are below the maximum ambient background concentration or most stringent applicable water quality criteria as shown in Table F-4. Therefore, it is anticipated that the condition of the effluent will be better than the influent, thereby enhancing the quality of the receiving waters and complying with the above Policy requirements Nonetheless, this Order contains provisions necessary to protect the beneficial uses of the receiving water when effluent is discharged to Port Hueneme Harbor.

3.3.3. **Thermal Plan.** Requirements of this Order implement the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan). The State Water Board adopted the Thermal Plan on January 7, 1971 and amended this plan on September 18, 1975 (Resolution No. 75-89). The Thermal Plan states "elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses. The maximum temperature of waste discharges shall not exceed the natural temperature of the receiving waters by more than 20°F." The maximum receiving water temperature recorded was 69°F. Based on the Thermal Plan, the maximum temperature of waste discharge from the Facility shall not exceed 89°F. Additionally, Los Angeles Water Board staff prepared a study entitled, *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region* (White Paper). The White Paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel; typical aquatic life species present in tidal estuaries and enclosed bays in the Los Angeles Region. A maximum effluent temperature limitation of 86°F was determined to be appropriate for protection of aquatic life. This Order establishes a multi-part effluent limitation that includes a maximum of 86°F, consistent with the Thermal Plan, and an effluent limit that requires that the effluent not be more than 20

degrees more than the receiving water, considering increasing water temperatures due to climate change.

3.3.4. **Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries in California – Part 3 Bacteria Provisions (Bacteria Provisions).** On August 7, 2018, the State Water Board adopted Resolution No. 2018-0038, *Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Policy* (Bacteria Provisions). The goals of the Bacteria Provisions are to (1) establish a beneficial use definition of limited water contact recreation (LREC-1); (2) establish new statewide numeric water quality objectives for bacteria to protect primary contact recreation (REC-1) beneficial use; (3) include implementation elements; and (4) create a water quality standards variance framework under provisions established by the U.S. EPA. OAL approved the regulatory action on February 4, 2019. On March 22, 2019 U.S. EPA approved the Bacteria Provisions and they became effective.

On February 13, 2020, the Los Angeles Water Board adopted Resolution Number R20-001, "*Amendments to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Fresh, Estuarine and Marine Waters Designated for Water Contact Recreation, based on the Statewide Bacteria Provisions"* This Resolution amends the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to update the numeric bacteria objectives for fresh, estuarine, and marine waters designated for water contact recreation, based on the Statewide Bacteria Provisions.

On May 19, 2020, R20-001 was approved by the State Water Resources Control Board under State Board Resolution R2020-0017 including the Basin Plan Amendment under R20-001. On June 22, 2021, State Board Resolution R2020-0017 was approved by OAL (File number: 2021-0512-01S).

This Order implements the applicable numeric water quality objectives for bacteria included in the Bacteria Provisions by establishing effluent limitations and receiving water limitations to protect beneficial uses of the receiving water.

3.3.5. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants. Requirements of this Order implement these criteria.

3.3.6. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Los Angeles Water Board in

the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

3.3.7. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16. Requirements of this Order implement federal and state antidegradation policies as described in section 4.4.2 of this Fact Sheet.

3.3.8. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. This Order complies with anti-backsliding provisions as discussed in finding 4.4.1 of this Fact Sheet.

3.3.9. **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. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including the beneficial use of Rare and Endangered Species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

3.3.10. **Mercury Provisions.** The State Water Board adopted "Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE); Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions" (Mercury Provisions) through Resolution No. 2017-0027, which was approved by the Office of Administrative Law (OAL) on June 28, 2017, and became effective upon U.S. EPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions, implemented through NPDES permits issued pursuant to CWA section 402, waste discharge requirements, or waivers of waste discharge requirements. The Mercury Provisions included

specific implementation provisions for individual non-stormwater NPDES permits for municipal and industrial dischargers; stormwater discharges regulated by Municipal Separate Storm Sewer System (MS4) permits and the Industrial General Permit; as well as for stormwater from mine site remediation sites; dredging activities; wetland projects and nonpoint source discharges. Because this discharge is comprised of non-stormwater (seawater), this Order implements the requirements in the Mercury Provisions for individual non-stormwater NPDES permits for industrial dischargers.

3.3.11. **Trash Amendments.** The State Water Board adopted the *"Amendment to the Ocean Plan and Part I Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California"* (Trash Amendments) through Resolution No. 2015-0019, which was approved by the Office of Administrative Law (OAL) on December 2, 2015 and became effective upon U.S. EPA approval on January 12, 2016. The Trash Amendments established a narrative water quality objective and a prohibition on the discharge of trash, to be implemented through permits issued pursuant to CWA section 402(p), waste discharge requirements, or waivers of waste discharge requirements.

The Trash Amendments apply to all surface waters of the State, with the exception of those waters within the jurisdiction of the Los Angeles Water Board where trash or debris Total Maximum Daily Loads (TMDLs) are in effect prior to the effective date of the Trash Provisions. There are currently no Trash TMDLs for the Port Hueneme Harbor, therefore the discharges described in this Order are subject to the Trash Amendments. This Order incorporates the requirements of the Trash Amendments through the prohibition of trash discharges at the discharge points.

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

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Los Angeles Water Board plans to develop and adopt TMDLs that will specify waste load allocations (WLA) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The U.S. EPA approved the California 2014-2016 CWA section 303(d) List of Impaired Waters (2014-16 303(d) List) on April 6, 2018. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2014-16 303(d) List and have been scheduled for TMDL development.

The Facility discharges into Port Hueneme Harbor. The 2014-16 303(d) List classifies Port Hueneme as impaired. The pollutants of concern in the Port Hueneme Harbor include arsenic, dieldrin, and PAHs,. The inclusion of Port Hueneme Harbor on the 2014-16 303(d) documents the waterbody's lack of assimilative capacity for the pollutants of concern. A total maximum daily load (TMDL) is developed for the pollutants of concern in a CWA section 303(d) listed waterbody to facilitate the waterbody's

recovery of its ability to fully support beneficial uses. To date, no TMDLs have been developed for Port Hueneme Harbor; therefore, no conditions in the Order are based on TMDLs. To ensure the protection of beneficial uses, reasonable potential analysis was conducted based on data collected by the previous discharger. DDT and PCBs did not show a reasonable potential to cause or contribute to an excursion above a state water quality standard in the receiving water, so no effluent limits for these constituents were necessary.

3.5. Other Plans, Polices and Regulations

3.5.1. **Climate Change Adaptation and Mitigation**. On March 07, 2017, the State Water Board adopted a resolution in recognition of the challenges posed by climate change that requires a proactive approach to climate change in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance (Resolution No. 2017-0012). The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions, by giving direction to the State Water Board divisions and encouraging coordination with the Los Angeles Water Board. The Los Angeles Water Board also adopted "A Resolution to Prioritize Actions to Adapt and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" (Resolution No. R18-004) on May 10, 2018. The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board's programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be mitigated on a short-term and long-term basis by each of the Los Angeles Water Board's programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated beneficial uses. This Order contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Boards' resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer's approval no later than 12 months after the effective date of this Order. The Climate Change Plan shall include an assessment of short and long term vulnerabilities of facilities and operations as well as plans to address vulnerabilities of collection systems, facilities, treatment systems, and outfalls for predicted impacts in order to ensure that facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level, wildfires, storm surges, and back-to-back severe storms which are expected to become more frequent.

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 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

As described above, the Facility is an aquaculture facility that houses marine organisms. The Facility operations generate waste that typically includes unused food and urchin excrement. Solids are commonly present in aquaculture facilities and therefore, total suspended solids (TSS) and turbidity are pollutants of concern. Organics are targeted in wastewater by measuring the 5-day biochemical oxygen demand @ 20°C (BOD). In addition, unused food and urchin excrement may contribute to nitrogen and fecal coliforms in the waste stream, and therefore, ammonia and *enterococcus* are pollutants of concern for this type of waste. Also, pH, temperature, and dissolved oxygen are pollutants of concern because the discharge of aquaculture wastewater also has the potential to impact pH, temperature, and dissolved oxygen of the receiving water body. The permit issued to the previous Discharger at this Facility included these pollutants of concern as well as copper and oil and grease. The Facility operations are similar to the operations of the previous Discharger. Silver, cyanide, and total residual chlorine were detected in the effluent at elevated levels and are therefore pollutants of concern.

40 CFR section 122.24 states that concentrated aquatic animal production facilities are point sources subject of the NPDES permit program. The Los Angeles Water Board has determined that the Facility is a concentrated aquatic animal production facility and is a significant contributor of pollution to waters of the United States. In making this determination, the Los Angeles Water Board has considered the following factors:

a. Location and quality of receiving waters;

b. Holding, feeding and production capacities of the facility; and

c. Quantity and nature of the pollutants reaching waters of the United States

4.1. **Discharge Prohibitions**.

Discharge Prohibitions in this Order are based on the federal CWA, the Code of Federal Regulations (CFR), the Basin Plan, the Water Code, State Water Board's plans and policies, U.S. EPA guidance and regulations, and previous permit provisions. This Order includes a new prohibition for trash in order to implement the statewide Trash Provisions. The discharge prohibitions included in this Order are consistent with the requirements set for other dischargers within the Los Angeles Region that are regulated by NPDES permits.

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 CFR section 122.44, require that permits include

conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards.

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

a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

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

The CWA requires 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 CFR section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Los Angeles Water Board must consider specific factors outlined in 40 CFR section 125.3.

4.2.2. **Applicable TBELs.**

The Facility is categorized as an animal aquaculture facility, with the SIC code 0273. 40 CFR part 451 contains effluent guidelines (ELGs) for wastewater discharged from the Concentrated Aquatic Animal Production Point Source Category. 40 CFR section 451.1 states that regulations included in 40 CFR Part 451 are applicable to the discharges of pollutants from facilities that produce 100,000 pounds or more of aquatic animals per year in a flow-through or recirculating system, like the proposed Facility. According to Form 2B of the Facility's ROWD, the total yearly harvestable weight produced by the Facility is

250,000 lbs. Therefore, the requirements contained in 40 CFR Part 451 are applicable to the Facility.

40 CFR Part 451 Subpart A – Flow-Through and Recirculating Systems Subcategory expresses the effluent limitations as practices. Part 451.11 establishes limitations that encompass BPT, BCT and BAT and NSPS. (See 40 CFR Parts 451.12, 451.13 and 451.14.) The practices are solids control, materials storage, structural maintenance, recordkeeping, and training. Pursuant to 40 CFR section 122.44(k), this Order requires the Discharger to develop, implement, and annually submit a Best Management Practices Plan (BMPP) that establishes site-specific procedures to ensure proper operation and maintenance of the Facility, pursuant to Part 451. At a minimum, the management practices should ensure that raw materials and chemicals do not come into contact with the discharge and prevent trash entering the discharge. These procedures shall also ensure that unauthorized discharges do not occur from the Facility. The BMPs shall address all normal facility operations including, but not limited to: solids control, materials storage, structural maintenance, recordkeeping and training (40 CFR. Part 451.11) as well as cleaning, feeding, transfer and importation of species, removal of dead species, storage and handling of raw material, and disposal of solid waste. The combination of the BMPP and permit limitations based on BCT will serve as the equivalent of technology-based effluent limitations in order to carry out the purposes and intent of the CWA.

The technology-based requirements in this Order are based on case-by-case numeric limitations developed using BCT in accordance with 40 CFR section 125.3. Technology-based effluent limitations are established in this Order for biochemical oxygen demand, oil and grease, and total suspended solids at Discharge Point 001. The limitations for these pollutants are consistent with technology-based effluent limitations (TBEL) included in other orders within the State for similar types of discharges, and are included in this Order to ensure that discharges from the Facility meet the level of treatment attainable by other industrial facilities within the state using existing technologies that are practical, available, and economically achievable. The Los Angeles Water Board considered other relevant factors pursuant to 40 CFR section 125.3, and concluded that the limitations are appropriate.

Table F-3 summarizes the technology-based effluent limitations for Discharge Point 001.

Table F-3. Summary of TBELs

Parameter	Units	Average Monthly	Maximum Daily
$BOD_5$20°C	mg/L	20	30
Oil and Grease	mg/L	10	15
TSS	mg/L	50	75

Additional reasoning upon which the foregoing limits are based is set forth below:

Biochemical Oxygen Demand (BOD5). The 5-day BOD test indirectly measures the amount of readily degradable organic material in water by measuring the residual dissolved oxygen after a period of incubation (usually 5 days at 20° C). This Order addresses BOD through technology-based effluent limitations.

Oil and Grease. This Order addresses oil and grease through technology-based effluent limitations.

Total Suspended Solids. The Basin Plan requires that, "Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses." This narrative objective has been translated into a numeric effluent limit, based on U.S. EPA's Quality Criteria for Water (commonly known as the "Gold Book"). In the Gold Book, U.S. EPA notes that "In a study downstream from a discharge where inert suspended solids were increased to 80 mg/L, the density of macroinvertebrates decreased by 60 percent…". This indicates that suspended solids concentrations of 80 mg/L in the receiving water resulted in adverse effects to aquatic life. As such, the Los Angeles Water Board implemented an MDEL of 75 mg/L for the implementation of the narrative water quality objective for Total Suspended Solids (TSS). This limitation is expected to be protective of receiving water quality, consistent with what is typically established for similar discharges in the Los Angeles Region, and achievable with technologies employed at the Facility.

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority.

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

40 CFR Section 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard in the receiving water, including numeric and narrative objectives. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (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 beneficial uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR. The specific procedures for determining reasonable potential and, if necessary, calculating WQBELs are contained in the SIP.

4.3.2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

As noted in section 3 of this Fact Sheet, the Los Angeles Water Board adopted a 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 Basin Plan. The beneficial uses applicable to Port Hueneme Harbor are summarized in section 3.3.1 of this Fact Sheet. The Basin Plan includes both narrative and numeric water quality objectives applicable to the receiving water.

a. **Mercury**. As discussed in section 3.3.16 of this Fact Sheet, this Order implements the Mercury Provisions. Table 1 of the Mercury Provisions establishes mercury water quality objective (WQO) that are fish tissue based, and the fish tissue based WQO was converted to a water column value of 12 ng/L (0.012 µg/L) for flowing water bodies with MAR and/or WILD beneficial use designations, such as Port Hueneme Harbor. The Mercury Provisions outline modified Reasonable Potential Analysis procedures that consist of comparing the highest observed annual average mercury concentration with the Table 1 criteria. Los Angeles Water Board staff reviewed monitoring data during years of discharge (2017 through 2018) for the Facility as regulated under another owner. The monitoring data indicated a maximum result of 9.45 ng/L. Since the monitoring data was below the water column value of 12 ng/l, the Facility has not demonstrated reasonable potential. The anticipated changes in operations are not expected to change the water quality of the effluent, so an effluent limitation for mercury is not established in this Order. However, monitoring requirements for mercury in the effluent and receiving water (as part of the remaining priority pollutants annual monitoring requirements) are included in this Order to validate these assumptions and evaluate reasonable potential going forward.

b. **Ammonia.** The ammonia aquatic life objectives of 0.233 mg un-ionized NH3/L (1-hour average) and 0.035 mg un-ionized NH3/L (4-day average) were translated to total ammonia according to Resolution 2004-022 Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with Beneficial Use Designations for Protection of Aquatic Life. Ammonia was identified as a pollutant of concern for the Facility. The Discharger collected receiving water pH, temperature, and salinity data from March 2012 through October 2018. From this data set, the 90th percentile pH and temperature, and 10th percentile salinity were used to calculate the 1-hour ammonia objectives. The 50th percentile pH, temperature, and salinity were used to calculate the 4-day average objective. Based on these data, the most stringent translated total ammonia objective was 0.89 mg/L. The ammonia maximum effluent concentration (MEC) (1.04 mg/L) was above this objective, indicating reasonable potential for the discharge to exceed the water quality objective. Hence, this Order includes an effluent limitation for ammonia. The effluent limitations were calculated according to Basin Plan procedures and are provided in Attachment G.

c. **Bacteria.** The Bacteria Provisions establish Enterococcus water quality objective for all waters where the salinity is greater than 1 ppth more than 5 percent of the time, such as Port Hueneme Harbor, during the calendar. According to data that the previous Discharger submitted, the average annual salinity level in the Port Hueneme Harbor is 30.33 ppth. Table 1 of the Bacteria Provision establishes the REC-1 numeric objectives as a six-week rolling geometric mean of enterococci not to exceed 30 cfu/100 mL, calculated weekly, with a STV of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner. This Order implements the Bacteria Provisions by incorporating the REC-1 numeric objectives as receiving water limitations and effluent limitations.

d. **Temperature**. As discussed above, the Basin Plan states that temperature objectives for enclosed bays and estuaries are specified in the Thermal Plan. The Thermal Plan states “elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses. The maximum temperature of waste discharges shall not exceed the natural temperature of the receiving waters by more than 20°F.” An additional overlay of the White Paper establishes that the maximum temperature of discharges that is protective of beneficial uses (aquatic life) is 86°F. A maximum effluent temperature limitation of 86°F, consistent with the Thermal Plan, and an effluent limit that requires that the effluent not be more than 20 degrees more than the receiving water was determined to be appropriate for protection of aquatic life and is included in this Order.

e. **Total Residual Chlorine.** The effluent exhibited an MEC of 0.12 mg/L, which exceeds the Basin Plan objective of 0.1 mg/L. This Order therefore includes an effluent limitation for chlorine equal to a daily maximum of 0.1 mg/L.

f. **pH.** This Order includes instantaneous minimum and maximum effluent limitations for pH based on Basin Plan objectives of 6.5 and 8.5, respectively.

g. **Turbidity.** Where turbidity is between 0 to 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%. The limitations included in this Order for turbidity is protective of the Basin Plan objectives for turbidity.

4.3.3. **CTR and SIP**

The CTR and the SIP specify numeric objectives for priority toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis (RPA) to determine the need for effluent limitations for priority toxic pollutants. The Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses.

Priority pollutant water quality criteria in the CTR are applicable to Port Hueneme Harbor. The CTR contains both saltwater and freshwater criteria. Because a distinct separation generally does not exist between freshwater and saltwater aquatic communities, the following apply, in accordance with section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this

occurs 95 percent or more of the time. Receiving water monitoring data collected by the Discharger demonstrated that 95 percent of the results were greater than 30 ppt. Therefore, CTR criteria for saltwater aquatic life protection and those based on human health for consumption of organisms are used to prescribe the effluent limitations in this Order to protect the beneficial uses of Port Hueneme Harbor, a water of the United States.

4.3.4. **Determining the Need for WQBELs**

a. **Reasonable Potential Analysis (RPA) Methodology**

In accordance with section 1.3 of the SIP, the Los Angeles Water Board conducts a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. If there is an applicable TMDL-based WLA, then WQBELs are developed using the WLA pursuant to 40 CFR section 122.44(d)(1)(vii)(B). The Los Angeles Water Board analyzes effluent and receiving water data and identifies the maximum observed effluent concentration (MEC) and maximum background concentration (B) in the receiving water for each constituent. To determine reasonable potential, the MEC and the B are then compared with the applicable water quality objectives (C) outlined in the CTR, NTR, as well as the Basin Plan. For all pollutants that have a reasonable potential to cause or contribute to an excursion above a state water quality standard, numeric WQBELs are required.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

1) Trigger 1 - If the MEC≥C a limit is needed.2) Trigger 2 - If the background concentration (B) > C and the pollutant is detected in the effluent, a limit is needed.

3) Trigger 3 - If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and receiving water data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Los Angeles Water Board to conduct the RPA. Upon review of the data, and if the Los Angeles Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

b. Reasonable Potential Analysis Results

The RPA was performed using data collected by the previous Discharger at Monitoring Location EFF-001 during the effective term of Order Number R4-2012-0054 (from August 2012 through May 2017) and Order Number R4-2017-0121 (from August 2017 through October 2018). Based on the RPA, pollutants that demonstrate reasonable potential are copper, cyanide, and silver. The table below summarizes results from the RPA. Only CTR pollutants that were detected in the effluent or receiving water are included in the table. Refer to Attachment H for a summary of the RPA and associated effluent limitations calculations.

Table F-4. Summary of Reasonable Potential Analysis

CTR No.	Constituent	Applicable Water Quality Criteria (µg/L) (C)	Maximum Effluent Conc. (µg/L) (MEC)	Maximum Detected Receiving Water Conc. (µg/L) (B)	RPA Result - Need Limit?	Reason
1	Antimony	4,300	16	28.1	No	MEC<C; B≤C
2	Arsenic	36	1.96	1.68	No	MEC<C; B≤C
4	Cadmium	9.4	1.7	2.3	No	MEC<C; B≤C
5b	Chromium (VI)	50	7.0	7.19	No	MEC<C; B≤C
6	Copper, TR	3.73	8.76	<0.87	Yes	MEC≥C
7	Lead, TR	8.52	0.067	0.064	No	MEC<C; B is ND
8	Mercury	0.051	0.00095	0.0013	No	MEC<C; B≤C
10	Selenium, TR	71	26.1	33	No	MEC<C; B≤C
11	Silver. TR	2.2	6.29	9.8	Yes	MEC; B>=C
12	Thallium	6.3	4.46	<3.4	No	MEC<C; B≤C
13	Zinc, TR	86	43.6	30	No	MEC<C; B≤C
14	Cyanide, Total (as CN)	1.0	1.16	1.16	Yes	MEC; B>=C
20	Bromoform	360	0.247	1.6	No	MEC<C; B≤C
34	Methyl Bromide	4,000	0.247	<0.086	No	MEC<C; B≤C

4.3.4. **WQBEL Calculations**

a. If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one or more of the three procedures contained in section 1.4 of the SIP. These procedures include:

   i. If applicable and available, use the WLA established as part of a TMDL.

   ii. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

   iii. Where sufficient effluent and receiving water data exist, use of a dynamic model, which has been approved by the Los Angeles Water Board.

b. The process for developing these limits is in accordance with Section 1.4 of the SIP. Two sets of AMEL and MDEL values are calculated separately, one set for the protection of aquatic life and the other for the protection of human health. The AMEL and MDEL limitations for aquatic life and human health are compared, and the most restrictive AMEL and the most restrictive MDEL

are selected as the WQBEL. Using total recoverable copper as an example, the WQBELs were calculated using the process described below:

WQBELs Calculation Example

Using cyanide as an example, the following demonstrates how WQBELs were established for this Order. The table in Attachment H summarizes the development and calculation of all WQBELs for this Order using the process described below. The process for developing these limits is in accordance with section 1.4 of the SIP.

Calculation of aquatic life AMEL and MDEL:

Step 1: For each constituent requiring an effluent limit, identify the applicable water quality criteria or objective. For each criterion, determine the effluent concentration allowance (ECA) using the following steady state equation:

ECA = C + D(C-B) when C>B, and
ECA = C when C≤B,

Where C = The priority pollutant criterion/objective, adjusted if necessary for hardness, pH and translators. For discharges from the Facility, criteria for saltwater are independent of hardness and pH.
D = The dilution credit, and
B = The ambient background concentration

As discussed above, this Order does not allow dilution; therefore

ECA = C

For cyanide the applicable water quality criteria:

$ECA = WLA_{acute} = 1.00\ \mu g/L$

$ECA = WLA_{chronic} = 1.00\ \mu g/L$

Step 2: For each ECA based or aquatic life criterion/objective, determine the long-term average discharge condition (LTA) by multiplying the ECA by a factor (multiplier). The multiplier is a statistically based factor that adjusts the ECA to account for effluent variability. The value of the multiplier varies depending on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the value of the CV. Equations to develop the multipliers in place of using values in the tables are provided in section 1.4, Step 3 of the SIP and will not be repeated here.

$$LTA_{acute} = ECA_{acute} \times Multiplier_{acute99}$$

$$LTA_{chronic} = ECA_{chronic} \times Multiplier_{chronic99}$$

The CV for the data set must be determined before the multipliers can be selected and will vary depending on the number of samples and the standard deviation of a data set. If the data set is less than 10 samples, or at least 80% of the samples in the data set are reported as non-detect, the CV shall be set equal to 0.6. It the data set is greater than 10 samples, and at least 20% of the

samples in the data set are reported as detected, the CV shall be equal to the standard deviation of the data set divided by the average of the data set.

For cyanide, the following data were used to develop the acute and chronic LTA using equations provided in Section 1.4, Step 3 of the SIP (Table 1 of the SIP also provides this data up to three decimals):

No. of Samples	CV	ECA Multiplier$_{acute}$	ECA Multiplier$_{chronic}$
4	0.6	0.32	0.53

$$LTA_{acute\ (cyanide)} = 1.0\ \mu g/L \times 0.32 = 0.32\ \mu g/L$$

$$LTA_{chronic\ (cyanide)} = 1.0\ \mu g/L \times 0.53 = 0.53\ \mu g/L$$

Step 3: Select the most limiting (lowest) of the LTA.

$$LTA = \text{most limiting of } LTA_{acute} \text{ or } LTA_{chronic}$$

For cyanide, the most limiting LTA was the $LTA_{acute\ (cyanide)}$

$$LTA_{cyanide} = LTA_{acute}\ (\text{cyanide}) = 0.32\ \mu g/L$$

Step 4: Calculate the WQBELs by multiplying the LTA by a factor (multiplier). WQBELs are expressed as AMEL and MDEL. The multiplier is a statistically based factor that adjusts the LTA for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations. The value of the multiplier varies depending on the probability basis, the CV of the data set, the number of samples (for AMEL) and whether it is a monthly or daily limit. Table 2 of the SIP provides pre-calculated values for the multipliers based on the value of the CV and the number of samples. Equations to develop the multipliers in place of using values in the tables are provided in section 1.4, Step 5 of the SIP and will not be repeated here.

$$AMEL_{aquatic\ life} = LTA \times AMEL_{multiplier95}$$

$$MDEL_{aquatic\ life} = LTA \times MDEL_{multiplier99}$$

AMEL multipliers are based on a 95th percentile occurrence probability, and the MDEL multipliers are based on the 99th percentile occurrence probability. If the number of samples is less than four (4), the default number of samples to be used is four (4).

For cyanide, the following data were used to develop the AMEL and MDEL for effluent limitations using equations provided in Section 1.4, Step 5 of the SIP (Table 2 of the SIP also provides this data up to two decimals):

No. of Samples Per Month	CV	Multiplier$_{MDEL99}$	Multiplier$_{AMEL95}$
4	0.6	3.11	1.55

For cyanide:

AMEL = 0.32 µg/L x 1.55 = 0.50 µg/L

MDEL = 0.32 µg/L x 3.11 = 1.0 µg/L

Calculation of human health AMEL and MDEL

Step 5: For the ECA based on human health, set the AMEL equal to the $ECA_{human\ health}$

$AMEL_{human\ health} = ECA_{human\ health}$

For cyanide

$AMEL_{human\ health}$ = 220,000 µg/L

Step 6: Calculate the MDEL for human health by multiplying the AMEL by the ratio of $Multipler_{MDEL}$ to the $Multiplier_{AMEL}$. Table 2 of the SIP provides pre-calculated ratios to be used in this calculation based on the CV and the number of samples. A default CV of 0.6 is used for cyanide.

$MDEL_{human\ health} = AMEL_{human\ health}$ x ($Multiplier_{MDEL}$/ $Multiplier_{AMEL}$)

For cyanide, the following data were used to develop the $MDEL_{human\ health}$:

No. of Samples Per Month	CV	$Multiplier_{MDEL99}$	$Multiplier_{AMEL95}$	Ratio
4	0.6	3.11	1.55	2.01

For cyanide:

$MDEL_{human\ health}$ = 220,000 µg/L x 2.01 = 442,200 µg/L

Step 7: Select the lower of the AMEL and MDEL based on aquatic life and human health criteria as the WQBEL for the Order.

For cyanide, the following data were used to develop the $MDEL_{human\ health}$:

$AMEL_{aquatic\ life}$	$MDEL_{aquatic\ life}$	$AMEL_{human\ health}$	$MDEL_{human\ health}$
0.50 µg/L	1.0 µg/L	220,000	442,200

The lowest (most restrictive) effluent limits are based on aquatic health and were incorporated into this Order. For cyanide, there are aquatic life criteria as well as human health criteria. The effluent limitations based on aquatic life criteria are more stringent for cyanide and are selected as the WQBELs.

Final WQBELs for Cyanide:

$AMEL_{cyanide}$ = 0.50 µg/L

$MDEL_{cyanide}$ = 1.0 µg/L

For silver and copper, there are no human health criteria or WLAs established; therefore, the effluent limitations based on aquatic life criteria are selected as the

WQBELs. These limitations are expected to be protective of the beneficial uses of the receiving water.

4.3.5. **Effluent Limitations for Copper, Silver, Cyanide, Ammonia, Total Residual Chlorine and Based on Intake Water Credits**

The Army Corps of Engineers periodically dredges the Port Hueneme Harbor near the Facilities' intake location. The Discharger has indicated that dredging operations coincide with high copper concentrations in the intake and to a lesser extent, the effluent. Periodic and planned dredging operations are expected to continue in this permit term and may potentially cause the Discharger to exceed effluent limitations for silver and cyanide as well as copper. The Discharger also indicated that the source water for the Channel Islands Urchin Co. facility, Port Hueneme Harbor, is an active commercial port with multiple businesses contributing discharges and surface water runoff which may affect the source water quality. The ammonia produced by the urchin cultivation process, is treated as part of the wastewater treatment system and does not contribute to any additional ammonia concentrations in the effluent. The Discharger does not conduct operations that contribute chlorine to the effluent. The levels of copper, silver, cyanide, ammonia, and total residual chlorine in the influent are similar to the concentrations detected in the effluent. Pursuant to 40 CFR section 122.45 (g) (Pollutants in Intake Water), if the discharger makes a request, the effluent limitations or standards may be adjusted to reflect credit for pollutants in the discharger's intake water. The intake water is obtained directly from the Port Hueneme Harbor and the discharges enter the same water body. The inclusion of intake water credits will restrict effluent concentrations of copper, silver, cyanide, ammonia, and total residual chlorine to levels at or below the intake water concentrations or the final effluent limitations for these pollutants. Based on these facts, the Discharger has satisfied the conditions of 40 CFR section 122.45(g). As such, this Order implements intake credits for copper, silver, cyanide, ammonia, and total residual chlorine at Discharge Point 001.

Section 1.4.4. of the SIP provides that, intake water credits for a pollutant may be established in an NPDES permit based on a Discharger's demonstration that certain criteria identified in the SIP are met. These criteria are described below.

"(1) The observed maximum ambient background concentration, as determined in section 1.4.3.1 and the intake water concentration of the pollutant exceeds the most stringent applicable criterion/objective for the pollutant.

(2) The intake water credits provided are consistent with any TMDL applicable to the discharge that has been approved by the Regional Water Board, State Water Board, and U.S. EPA.

(3) The intake water is from the same waterbody as the receiving water body. The discharger may demonstrate this condition by showing that:

(a) The ambient background concentration of the pollutant in the receiving water, excluding any amount of the pollutant in the Facility's discharge, is similar to that of the intake water;

(b) There is a direct hydrological connection between the intake and discharge points;

(c) The water quality characteristics are similar in the intake and receiving waters; and;

(d) The intake water pollutant would have reached the vicinity of the discharge point in the receiving water within a reasonable period of time and with the same effect had it not been diverted by the discharger. The Regional Water Board may also consider other factors when determining whether the intake water is from the same water body as the receiving water body:

(4) The Facility does not alter the intake water pollutant chemically or physically in a matter that adversely affects water quality and beneficial uses; and

(5) The timing and location of the discharge does not cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water body".

The Discharger meets the criteria in section 1.4.4 of the SIP follows:

Criteria (1). The previous Discharger sampled intake water for copper, silver, cyanide, ammonia and total residual chlorine from a purge hose located at the influent pump (INF-001). Ambient receiving water monitoring samples for priority pollutants, including copper, silver, cyanide, ammonia and total residual chlorine were collected in the Port Hueneme Harbor near the intake pipes, (RSW-001). The terminus of the intake pipe is 75 feet from shore. The RSW-001 monitoring for copper, silver, and total residual chlorine occurred during the term of Order R4-2012-0054. The RSW-001 monitoring for cyanide and ammonia occurred during the terms of Orders R4-2012-0054 and R4-2017-0121. Monitoring for copper, silver, cyanide, ammonia and total residual chlorine at INF-001 and EFF-001 occurred on the same day during permit term of R4-2017-0054. Two samples were collected for INF-001, one approximately 2 hours before the effluent sample is collected and one at the same time that the effluent sample was collected. It should be noted that RSW-001 is sampled only once per year, whereas INF-001 is sampled once per quarter (2 samples on the same date).

Table F-5 provides a comparison of the combined maximum ambient background data (RSW-001), the intake water concentrations (INF-001), and the applicable criteria. The comparison shows that the intake and/or the ambient background data, which, because of the sample location, is also representative of intake water, exceeds the most stringent CTR criteria for copper, silver, and cyanide, and the Basin Plan objectives for ammonia and total residual chlorine. For copper, silver, cyanide, ammonia and total residual chlorine the MECs corresponded to the dates where maximum receiving water concentrations were observed.

Table F-5. Current Intake Water Credit Evaluation Data

Parameter	Effluent Concentration (µg/L)	Maximum Ambient Background (µg/L)	Intake Water (µg/L)	Maximum Ambient Background/Intake Water (µg/L)	Applicable Criteria (µg/L)	Notes
Copper	1.07	<0.87	16.6	16.6	3.7	b
Silver	0.154	9.8	0.168	9.8	2.2	a and b
Cyanide	1.16	1.16	<1.0	1.16	1.0	a and b
Ammonia	84	<71	91	91	890	a and b
Total Residual Chlorine	40	<1	50	50	100	a and b

Footnotes for Table F-5

a. The result was detected at a level below the minimum level and is an estimated concentration.
b. Includes data from INF-001 and RSW-001.

End of Footnotes for Table F-5

Criteria (2). There are no TMDLs for copper, silver, cyanide, ammonia and total residual chlorine in the Port Hueneme Harbor.

Criteria (3). The intake structure location, the ambient monitoring location, and Discharge Point 001 are all at the mouth of the Port Hueneme Harbor, demonstrating a direct hydrological connection. Since the intake and receiving waters are in the same water body, the intake and receiving water characteristics are similar.

Criteria (4). The Facility does not add copper, silver, cyanide, or total residual chlorine to the discharge and provides mechanical filtration that removes these constituents from the intake water. The urchins produce minimal ammonia that the Facility removes before discharge. Despite copper intake concentrations as high as 95.6 µg/L, the Facility was able to reduce copper in the effluent to below detection levels (0.87 µg/L to 10 µg/L) in 20 out of 21 samples collected between March 14, 2012 and July 18, 2016. Additionally, the receiving water silver concentration is similar to the effluent concentration and the receiving water cyanide concentration is the same as the effluent concentration. The effluent concentrations of copper, silver, cyanide, ammonia, and total residual chlorine are similar to or less than the intake and ambient receiving water concentrations. Therefore, granting of intake credits will not adversely affect water quality or beneficial uses in the Port Hueneme Harbor.

Criteria (5). Because the quality of the effluent is likely to be similar to or better than the intake water, the timing and location of the discharge will not cause adverse effects on water quality and beneficial uses. The Facility's discharge does not alter currents or mixing within the Harbor and the intake waters will

reach the location of the receiving waters through natural mixing processes, thus satisfying this condition.

Based on the evaluation of the criteria above, the Los Angeles Water Board has determined that intake credits for copper, silver, cyanide, ammonia, and total residual chlorine are appropriate. According to Section 1.4.4 of the SIP, the Los Angeles Water Board may establish effluent limitations allowing the Facility to discharge a mass and concentration of the intake water pollutant that is no greater than the mass and concentration found in the Facility's intake water. The Los Angeles Water Board may also determine compliance by simultaneously monitoring the pollutant concentrations in the intake water and in the effluent.

Therefore, if an influent water concentration for copper, silver, cyanide, or ammonia does not exceed the respective AMELs of 2.9 µg/L, 1.1 µg/L, 0.50 µg/L, or 0.42 mg/L then the limitations are applied as noted in Table F-6 Summary of Final Effluent Limitations – Discharge Point 001. If an influent water copper, silver, cyanide, ammonia, or total residual chlorine concentration exceeds the respective AMEL but does not exceed the MDEL (5.8 µg/L for copper, 2.2 µg/L for silver, 1.0 µg/L for cyanide, 1.3 mg/L for ammonia, or 0.1 mg/l for total residual chlorine) then compliance with the AMEL will be determined based on intake water credits. In this instance, compliance with the MDEL is applied as noted in Table F-6. If the influent water concentration for copper, silver, cyanide, ammonia, or total residual chlorine exceeds a respective MDEL, then compliance with both the AMEL and MDEL will be determined based on intake water credits.

When applying an intake water credit, the effluent limitation is equal to the maximum concentration in the influent (i.e., intake) water. Using copper as an example, the equation is as follows:

Cu Effluent Limitation with Intake Water Credit = Maximum Cu Influent Water Concentration.

Two influent samples shall be collected per quarter to address the variability of the influent water. The first influent sample shall be collected two hours prior to the effluent sample. The second influent sample shall be collected at approximately the same time as the effluent sample. When evaluating compliance with the copper effluent limitations based on intake water credit, compare the copper effluent concentration to the maximum copper influent water concentration, as follows:

If Cu Effluent Concentration > Maximum Cu Influent Water Concentration, then Violation.

If Cu Effluent Concentration ≤ Maximum Cu Influent Water Concentration, then Compliant.

4.3.6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "*no toxics in*

toxic amounts" criterion while implementing numeric criteria for toxicity. 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 toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes, but is not limited to, decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

In June 2010, USEPA published a guidance document titled National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of USEPA's Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/0136,1995), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The TST's null hypothesis for chronic toxicity is:

H_o: Mean response (IWC in % effluent) $\leq$0.75 mean response (Control).

Results obtained from the chronic toxicity test are analyzed using the TST approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P". Chronic toxicity results are expressed as "Pass" or "Fail" and "% Effect". Since no dilution is allowed, the chronic toxicity IWC for Discharge Point 001 is 100 percent effluent.

This Order does not include a chronic toxicity effluent limitation but requires the annual chronic toxicity testing of the effluent at discharge location EFF-001. This Order also establishes a chronic toxicity accelerated monitoring trigger defined as a test result of "Fail" for the TST approach. Nevertheless, this Order contains a reopener to allow the Los Angeles Water Board and USEPA to modify the permit in the future, if necessary, to make it consistent with any new policy, plan, law, or regulation.

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 CFR 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. Since this Facility is new, anti-backsliding requirements are not applicable to this Order.

4.4.2. **Antidegradation Policies**

40 CFR section 131.12 requires that the state water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge.

The cumulative effect of all effluent limitations and other requirements included in this Order is to ensure that applicable water quality objectives of the receiving water will be attained, thereby protecting the beneficial uses of the receiving water.

The final effluent limitations in this Order hold the discharger to performance levels that will not cause or contribute to water quality impairment or degradation. The final effluent limitations in this Order, which include concentration based and mass-based limitations, hold the Discharger to performance levels that will not cause or contribute to water quality impairments or water quality degradation. Therefore, the permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16. The Los Angeles Water Board has no reason to believe that existing water quality will be reduced due to the proposed action, so no further antidegradation analysis is required.

4.4.3. **Mass-based Effluent Limitations**

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

Mass-based effluent limitations are established using the following formula:

Mass (lbs/day) = flow rate (MGD) x 8.34 x effluent limitation (mg/L)

where: Mass = mass limitation for a pollutant (lbs/day)

Effluent limitation = concentration limit for a pollutant (mg/L)

Flow rate = discharge flow rate (MGD)

Mass-based effluent limitations applicable to Discharge Points 001 are based on a maximum flow of 1.44 MGD.

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

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on BOD, oil and grease, TSS, and turbidity. Restrictions on these pollutants are discussed in section 4.2.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been derived to implement WQOs that protect beneficial uses. The WQBELs consist of restriction on settleable solids and total residual chlorine. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR implemented by the SIP, which was approved by U.S. EPA on May 18, 2000. All beneficial uses and WQOs 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 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

Table F-6. Summary of Final Effluent Limitations for Discharge Point 001

Parameter	Units	Maximum Daily Effluent Limitations	Basis	Notes
Biochemical Oxygen Demand (BOD_5@20°C)	mg/L	30	BP	
$BOD_5$20°C	lbs/day	360	BP	a
Oil and Grease	mg/L	15	BP	
Oil and Grease	lbs/day	180	BP	a
pH	standard units	6.5 Min 8.5 Max	BP	b
Total Suspended Solids (TSS)	mg/L	75	BP	---
TSS	lbs/day	900	BP	a
Settleable Solids	ml/L	0.3	BP	---
Ammonia Nitrogen, Total (as N)	mg/L	1.3	BP	---
Ammonia Nitrogen, Total (as N)	lbs/day	15.6	BP	a
Chronic Toxicity	Pass or Fail, % Effect	Pass or % Effect<50	BP	---

Parameter	Units	Maximum Daily Effluent Limitations	Basis	Notes
Temperature	ºF	86	TP	c
Total Residual Chlorine	mg/L	0.1	BP	---
Total Residual Chlorine	lbs/day	1.2	BP	a
Turbidity	NTU	75	BP	---
Enterococcus	CFU or MPN/100 ml	---	BP	d
Copper, TR	µg/L	5.8	CTR, SIP	---
Copper, TR	lbs/day	0.070	CTR, SIP	a
Silver, TR	µg/L	2.2	CTR, SIP	---
Silver, TR	lbs/day	0.026	CTR, SIP	a
Cyanide, Total (as CN)	µg/L	1.0	CTR, SIP	---
Cyanide, Total (as CN)	lbs/day	0.012	CTR, SIP	a

Footnotes for Table F-6:

a. The mass limitations are based on a maximum flow of 1.44 million gallons per day (MGD) and is calculated as follows: Mass (lbs/day) = flow (MGD) x concentration (mg/L) x 8.34 (conversion factor).
b. Effluent limitations for pH are 6.5 as an Instantaneous Minimum and 8.5 as an Instantaneous Maximum.
c. The effluent limitation for temperature is 86ºF as an Instantaneous Maximum. Additionally, the maximum temperature of waste discharges shall not exceed the natural temperature of the receiving waters by more than 20 ºF.
d. The Enterococcus concentration in the effluent shall not exceed a six-week rolling geometric mean of 30 colony forming units (CFU) or most probable number (MPN) per 100 milliliter (mL), calculated weekly, with a statistical threshold value (STV) of 110 CFU or MPN per 100 mL. The STV shall not be exceed by more than 10 percent of the sample collected in a calendar month.

End of Footnotes for Table F-6

4.5. Interim Effluent Limitations – Not Applicable

4.6. Land Discharge Specifications – Not Applicable

4.7. Recycling Specifications – Not Applicable

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high-quality waters pursuant to federal regulations (40 CFR section 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water and are based on the water quality objectives contained in the Basin Plan and applicable statewide plans, including the Thermal Plan and Inland Surface Waters and Enclosed Bays and Estuaries Plan. If there is reasonable potential (RP) or

a U.S. EPA-approved TMDL WLA, then WQBELs are included in this Order to ensure protection of water quality standards.

5.2. **Groundwater – Not Applicable**

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

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

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR part 123. The Los Angeles Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new federal regulations, modification in toxicity requirements, or adoption of new regulations by the State Water Board or Los Angeles Water Board, including revisions to the Basin Plan.

6.2.2. Special Studies and Additional Monitoring Requirements

a. **Initial Investigation Toxicity Reduction Evaluation Workplan.** This provision is based on section 4 of the SIP, Toxicity Control Provisions, which establishes minimum toxicity control requirements for implementing the narrative toxicity objective for aquatic life protection established in the basin plans of the State of California.

6.2.3. Best Management Practices and Pollution Prevention

a. **Best Management Practices Plan (BMPP).** This Order requires the Discharger to develop and to implement a BMPP and address the wastewater discharges to Port Hueneme Harbor. The BMPP should include site-specific plans, procedures, and practices to minimize the amount of pollutants entering wastewater discharges from materials being stored and activities being conducted throughout the entire Facility. To ensure the Discharger considers and implements appropriate and effective BMPs, the discharger is required to consider implementing BMPs contained in the U.S. EPA Guidance

Manual for Developing Best Management Practices (BMPs) (EPA 833-B-93-004) or equivalent alternatives when developing its BMPP.

The BMPP shall include site-specific plans and procedures implemented and/or to be implemented to prevent hazardous waste/material and trash from being discharged to waters of the State. The BMPP shall include plans and procedures for each of the following:

i. Solids control. The permittee must:

   a. Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the U.S.

   b. In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting aquatic animals in the production system.

   c. Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the U.S., except incases where the permitting authority authorizes such discharge in order to benefit the aquatic environment.

ii. Materials storage. The permittee must:

   a. Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides or feed to waters of the U.S.

   b. Implement procedures for properly containing, cleaning, and disposing of any spilled material.

iii. Structural maintenance. The permittee must:

   a. Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.

   b. Conduct regular maintenance of the production system and the wastewater treatment system in order to ensure that they are properly functioning.

iv. Recordkeeping. The permittee must:

   a. In order to calculate representative feed conversion ratios, maintain records for aquatic animal rearing units documenting the feed amounts and estimates of the numbers and weight of aquatic animals.

b. Keep records documenting the frequency of cleaning, inspections, maintenance and repairs.

v. Training. The permittee must:

a. In order to ensure the proper clean-up and disposal of spilled material adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.

b. Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.

In particular, a risk assessment of each area identified by the Discharger shall be performed to determine the potential for hazardous or toxic waste/material and trash discharge to surface waters.

b. **Spill Contingency Plan (SCP).** This Order requires the Discharger to develop and to implement a SCP to control the discharge of pollutants. The SCP shall include a technical report on the preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events at the site. This provision is included in this Order to minimize and control the amount of pollutants discharged in case of a spill. The SCP shall be site specific and shall cover all areas of the Facility.

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

This provision included in Section 6.3.4 of the Waste Discharge Requirements of this Order is based on the requirements of 40 CFR section 122.41(e).

6.2.5. **Other Special Provisions - Not Applicable**

6.2.6. **Compliance Schedules - Not Applicable**

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorizes the Los Angeles Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

7.1. Influent Monitoring

The Discharger must monitor influent in order to collect the data necessary to assess the intake water credits for ammonia, total residual chlorine, copper, cyanide, and silver.

7.2. Effluent Monitoring

Monitoring for pollutants expected to be present in the discharge will be required as established in the MRP (Attachment E). To demonstrate compliance with established effluent limitations, the Order includes monitoring requirements for parameters for which effluent limitations have been established. Monitoring for additional pollutants is

required based on pollutants commonly associated with similar operations and is consistent with the monitoring requirements contained in the MRP.

The SIP states that the Los Angeles Water Board will require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. This Order requires the Discharger to conduct annual monitoring for the remaining CTR priority pollutants. The Los Angeles Water Board will use the additional data to conduct an RPA and determine if additional WQBELs are required. The Los Angeles Water Board may reopen the permit to incorporate additional effluent limitations and requirements, if necessary.

7.3. Whole Effluent Toxicity Testing Requirements

WET protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. A chemical at a low concentration can have chronic effects but no acute effects. For this permit, chronic toxicity monitoring in the discharge is required. The chronic toxicity testing requirements are based on U.S. EPA's 2010 TST statistical approach.

7.4. Receiving Water Monitoring

7.4.1. Surface Water

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. These water quality objectives include the requirement to maintain high-quality waters pursuant to federal regulations (40 CFR section 131.12) and State Water Board Resolution Number 68-16. Numeric and narrative water quality objectives applicable to surface waters within the Los Angeles Region and the Port Hueneme Harbor are also included in the Thermal Plan and Enclosed Bays and Estuaries Plan, including the provisions related to Bacteria, Sediment Quality, Trash Control and Mercury. Receiving water limitations in this Order are included to ensure protection of beneficial uses of the receiving water.

7.4.2. Groundwater – Not Applicable

7.5. Other Monitoring Requirements

7.5.1. **BMP and Spill Contingency Plan Status and Effectiveness Report.** The Discharger is required by Special Provision 6.3.3. of the Order to develop and implement a BMP and Spill Contingency Plan. This Order requires the Discharger to report on the effectiveness of the plans and update them as needed to ensure all actual or potential sources of pollutants in wastewater discharged from the Facility are addressed in the BMP, and Spill Contingency Plan.

8. PUBLIC PARTICIPATION

The Los Angeles Water Board is considering the issuance of WDRs that will serve as a NPDES permit for the Urchinomics USA, Inc., Channel Islands Urchin Co. LLC. As a step in the WDR adoption process, the Los Angeles Water Board staff has developed tentative

WDRs. The Los Angeles Water Board encourages public participation in the WDR adoption process

8.1. Notification of Interested Parties

The Los Angeles Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following:

The public had access to the agenda and any changes in dates and locations through the Los Angeles Water Board's website at http://www.waterboards.ca.gov/losangeles/.

8.2. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Los Angeles Water Board at the address on the cover page of this Order, or by email submitted to losangeles@waterboards.ca.gov with a copy to adriana.vallejo@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, the written comments were due at the Los Angeles Water Board office by **5:00 p.m. on March 17, 2022**.

8.3. Public Hearing

The Los Angeles 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:	April 14, 2022
Time:	9:00 a.m.
Location:	City of Simi Valley, California

Additional information about the location of the hearing and options for participating were made available 10 days before the hearing. Any person desiring to receive future notices about any proposed Board action regarding this Discharger, please contact Adriana Vallejo at adriana.vallejo@waterboards.ca.gov, to be included on the e-mail list.

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

8.4. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Los Angeles 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:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

8.5. **Information and Copying**

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the 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 Los Angeles Water Board at the address below or by emailing losangeles@waterboards.ca.gov

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200
Los Angeles, CA 90013-2343

The tentative WDRs, comments received and response to comments are also available on the Los Angeles Water Board's website at:
http://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.shtml

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 Los Angeles 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 Adriana Vallejo at adriana.vallejo@waterboards.ca.gov or at (213) 620-2160.

ATTACHMENT G – SUMMARY OF AMMONIA RPA AND WQBEL CALCULATIONS

Attachement G
Calculations of Water Quality Objectives and Effluent Limits for Ammonia
Channel Islands Urchin Co. LLC (CA0064696), March 2012 to October 2018

	Receiving Water		
	pH	Temp. (Deg. F)	Salinity (ppt)
50 percentile	8.18	62.96	30.10
90th percentile	8.29	71.06	31.10
10th Percentile			29.92

Calculations for Total Ammonia Water Quality Objectives Based on Un-ionized Ammonia Objectives

	Un-ionized-NH3 Objective [NH3]:	P (atm)	pH	Temp. (K)	Salinity (ppt)	Molal Iconic Strength (i)	pK_a^S	Total Ammonia Objectives (mg/L NH3)
One-hour Average	0.233	1	8.29	294.85	29.92	0.61	9.32	3.37
4-day Average	0.035	1	8.18	290.35	30.10	0.62	9.32	0.89

Molal iconic strength (i) = 19.9273 S (1000-1.005109 S)$^{-1}$
pKa = 0.116 * i + 9.245
Total Ammonia = $[NH_4^+]+[NH_3] = [NH_3] + [NH_3]*10 \wedge (pK_a^S +0.0324 (298-T) + 0.0415 P/T - pH)$

Calculations for Final Effluent Monthly Average (AMEL) and Daily Maximum (MDEL) Limitations for Ammonia Nitrogen

Calculation using n (Sampling Frequency) = 4

	Ammonia Water Quality Objective	ECA=WQO (No dilution allowed)	CV	ECA Multiplier (Table 3-6)	LTA	Multiplier (Table 3-7) n = 4	Conversion Factor (mg /L NH3) to (mg/L NH3-N)	MDEL (mg/L NH3-N)	AMEL (mg/L NH3-N)
One-hour Average	3.365	3.365	2.020	0.116	0.390	8.613	0.824	1.285	
4-day Average	0.894	0.894	2.020	0.202	0.181	2.795	0.824		0.417

MDEL = 0.181 (most limiting LTA) x 8.613 x 0.824 = 1.285
AMEL = 0.181 (most limiting LTA) x 2.795 x 0.824 = 0.417

Input data:	Receiving water pH, temperature, and salinity ("RW Data" tab)
	CV (Coefficient of Variation) and ECA, MDEL and AMEL multipliers ("EFF Data" tab)

ADOPTED: 04/14/2022

Page 1 of 1

ATTACHMENT H – SUMMARY OF RPA AND WQBEL CALCULATIONS

Attachment H
Reasonable Potential Analysis and Effluent Limitations Calculations
Channel Islands Urchin Co. LLC
Discharge Point No. 001

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	CTR Water Quality Criteria (ug/L) Freshwater C chronic = CCC tot	CTR Water Quality Criteria (ug/L) Saltwater C acute = CMC tot	CTR Water Quality Criteria (ug/L) Saltwater C chronic = CCC tot	CTR Water Quality Criteria (ug/L) Human Health for consumption of Water & organisms (Based on Basin Plan MCL)	CTR Water Quality Criteria (ug/L) Human Health for consumption of Organisms only	Lowest C	MEC >= Lowest C	Tier 1- Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND, Enter the min detection limit (MDL)(ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL<C?	If B>C, effluent limit required	Tier 3 - other info..?	RPA Result Need Limit?	Reason	AMEL hh = ECA + C hh, 0 only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL avg life	MDEL multiplier 99	MDEL avg life	RPA Limits Lowest AMEL	RPA Limits Lowest MDEL	Proposed Permit Average Monthly	Proposed Permit Maximum Daily	Recommendation
1	Antimony	ug/L		1.95					4300.00		4300.00	No	No	Y	N		1.69		B>C, Step 7		No	MEC=C & B=C															No Limit
2	Arsenic	ug/L		1.96			69.00	36.00			36.00	No	No	Y	N		1.69		B>C, Step 7		No	MEC=C & B=C															No Limit
3	Beryllium	ug/L		No Criteria					Narrative		No Criteria	No Criteria	No Criteria	Y	Y	0.084		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
4	Cadmium	ug/L		1.73			42.25	9.36	Narrative		9.36	No	No	Y	N		2.32		B>C, Step 7		No	MEC=C & B=C															No Limit
5a	Chromium (III)	ug/L		No Criteria					Narrative		No Criteria	No Criteria	No Criteria	Y	Y	0.84		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
5b	Chromium (VI)	ug/L		7.8			1100.00	50.00		Narrative	50.00	No	No	Y	N		7.19		B>C, Step 7		No	MEC=C & B=C															No Limit
6	Copper	ug/L	0.6	8.76			6.78	3.73			3.73	Yes	Yes	Y	N				N	No detected value of B, Step 7		Yes	MEC=C		2.01		0.32	1.66	0.53	1.87	1.66	1.66	2.88	3.11	5.78	2.88	5.78	2.90	5.80	Limit Required
7	Lead	ug/L		0.0955			220.82	8.52		Narrative	8.52	No	No	Y	Y				N	No detected value of B, Step 7		No	MEC=C & B = ND															No Limit
8	Mercury	ug/L		0.00049			Reserved	Reserved		0.051	0.051	No	No	Y	Y	0.00005			N	No detected value of B, Step 7		No	MEC=C & B = ND															No Limit
9	Nickel	ug/L		0.896			74.76	8.28		4600.00	8.28	No	No	Y	N		1.61		N	No detected value of B, Step 7		No	MEC=C & B = ND															No Limit
10	Selenium	ug/L		26.1			290.58	71.14		Narrative	71.14	No	No	Y	N		3.33		B>C, Step 7		No	MEC=C & B=C															No Limit
11	Silver	ug/L	0.6	5.36			2.24				2.24	Yes	Yes	Y	N		0.19		Limit required, B>C & pollutant detected in effluent		Yes	MEC=C		2.01		0.32	0.72	0.53	0.00	0.72	1.66	1.11	3.11	2.2258943	1.11	2.24	1.10	2.20	Limit Required
12	Thallium	ug/L		4.48						6.30	6.30	No	No	Y	Y				N	No detected value of B, Step 7		No	MEC=C & B = ND															No Limit
13	Zinc	ug/L		40.8			95.14	85.60			85.60	Yes	Yes	Y	N		3.9		B>C, Step 7		No	U d MEC=C & no B															No Limit
14	Cyanide	ug/L	0.6	1.18			1.00	1.00		220000	1.00	Yes	Yes	Y	N		1.18		Limit required, B>C & pollutant detected in effluent		Yes	MEC=C		2.01		0.32	0.32	0.53	0.65	0.32	1.66	0.60	3.11	1	0.60	1.00	0.50	1.00	Limit Required
15	Asbestos	Fibers/L								7.00	7.00			N						No detected value of B, Step 7		Ud	No effluent data & no B															No Limit
16	2,3,7,8-TCDD Equivalents	ug/L									0.00			N	Y	0.000000476		Y		No detected value of B, Step 7		No	UD-Effluent ND, MDL/C & No B															No Limit
	TCDD Equivalents	ug/L								0.000000014	0.000000014			Y	Y	0.000000476		Y		No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
17	Acrolein	ug/L		2.5						780	780	No	No	Y	Y		2.5		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
18	Acrylonitrile	ug/L		0.48						0.66	0.66	No	No	Y	Y		0.48		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
19	Benzene	ug/L		0.04						71	71.00	No	No	Y	Y		0.04		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
20	Bromoform	ug/L		0.695						360	360.00	No	No	Y	N		1.69		B>C, Step 7		No	MEC=C & B=C															No Limit
21	Carbon Tetrachloride	ug/L		0.05						4.4	4.40	No	No	Y	Y		0.025		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
22	Chlorobenzene	ug/L		0.029						21000	21,000.00	No	No	Y	Y		0.025		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
23	Chlorodibromomethane	ug/L		0.03						34	34.00	No	No	Y	Y		0.03		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
24	Chloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.14		N	No Criteria	No Criteria		No Criteria															No Limit
25	2-Chloroethylvinyl ether	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.14		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
26	Chloroform	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		1		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
27	Dichlorobromomethane	ug/L		0.03						46	46.00	No	No	Y	Y		0.025		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
28	1,1-Dichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.05		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
29	1,2-Dichloroethane	ug/L		0.05						99	99.00	No	No	Y	Y		0.038		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
30	1,1-Dichloroethylene	ug/L		0.05						3.2	3.20	No	No	Y	Y		0.038		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
31	1,2-Dichloropropane	ug/L		0.037						39	39.00	No	No	Y	Y		0.027		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
32	1,3-Dichloropropylene	ug/L		0.05						1700	1700	No	No	Y	Y		0.052		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
33	Ethylbenzene	ug/L		0.049						2000	2,000.00	No	No	Y	Y		0.046		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
34	Methyl Bromide	ug/L		0.247						4000	4,000.00	No	No	Y	Y		0.066		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
35	Methyl Chloride	ug/L		No Criteria							2,000.00	No Criteria	No Criteria	Y	N			0.252		No Criteria	No Criteria	Uc	No Criteria															No Limit
36	Methylene Chloride	ug/L		0.052						1600	1600.00	No	No	Y	N			1.2		B>C, Step 7		No	MEC=C & B=C															No Limit
37	1,1,2,2-Tetrachloroethane	ug/L		0.078						11	11.00	No	No	Y	Y		0.078		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
38	Tetrachloroethylene	ug/L		0.05						8.85	8.85	No	No	Y	Y		0.055		N	No detected value of B, Step 7		sd	No effluent data & B is ND															No Limit
39	Toluene	ug/L		0.05						200000	200,000.00	No	No	Y	Y		0.046		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
40	1,2-Trans-Dichloroethylene	ug/L		0.12						140000	140,000.00	No	No	Y	Y		0.17		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
41	1,1,1-Trichloroethane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.053		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
42	1,1,2-Trichloroethane	ug/L		0.035						42	42.00	No	No	Y	Y		0.033		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
43	Trichloroethylene	ug/L								81	81.00			Y	Y		0.05		N	No detected value of B, Step 7		sd	No effluent data & B is ND															No Limit
44	Vinyl Chloride	ug/L		0.051						525	525.00	No	No	Y	Y		0.061		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
45	2-Chlorophenol	ug/L		1						400	400.00	No	No	Y	Y		1		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
46	2,4-Dichlorophenol	ug/L		0.75						790	790.00	No	No	Y	Y		0.75		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
47	2,4-Dimethylphenol	ug/L		0.75						2300	2300.00	No	No	Y	Y		0.75		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
48	4,6-dinitro-o-cresol (aka 2-methyl-4,6-Dinitrophenol)	ug/L		0.43						765	765.00	No	No	Y	Y		0.43		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
49	2,4-Dinitrophenol	ug/L		0.22						14000	14,000.00	No	No	Y	Y		0.22		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
50	2-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.7		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
51	4-Nitrophenol	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.67		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-cresol)	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.86		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
53	Pentachlorophenol	ug/L		0.54			13.00	7.90		8.2	7.90	No	No	Y	Y		0.54		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
54	Phenol	ug/L		0.88						4800000	4,800,000.00	No	No	Y	Y		0.88		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
55	2,4,6-Trichlorophenol	ug/L		0.47						6.5	6.50	No	No	Y	Y		0.47		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
56	Acenaphthene	ug/L		0.47						2700	2700.00	No	No	Y	Y		0.47		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit

CTR#	Parameters	Units	CV	MEC	CTR Water Quality Criteria (ug/L) Freshwater C acute = CMC tot	CTR Water Quality Criteria (ug/L) Freshwater C chronic = CCC tot	CTR Water Quality Criteria (ug/L) Saltwater C acute = CMC tot	CTR Water Quality Criteria (ug/L) Saltwater C chronic = CCC tot	CTR Water Quality Criteria (ug/L) Human Health for consumption of Water & organisms (Based on Basin Plan MCL)	CTR Water Quality Criteria (ug/L) Human Health for consumption of Organisms only	Lowest C	MEC >= Lowest C	Tier 1- Need limit?	B Available (Y/N)?	Are all B data points non-detects (Y/N)?	If all data points ND, Enter the min detection limit (MDL)(ug/L)	Enter the pollutant B detected max conc (ug/L)	If all B is ND, is MDL<C?	If B>C, effluent limit required	Tier 3 - other info..?	RPA Result Need Limit?	Reason	AMEL hh = ECA + C hh, 0 only	MDEL/AMEL multiplier	MDEL hh	ECA acute multiplier (p.7)	LTA acute	ECA chronic multiplier	LTA chronic	Lowest LTA	AMEL multiplier 95	AMEL avg life	MDEL multiplier 99	MDEL avg life	RPA Limits Lowest AMEL	RPA Limits Lowest MDEL	Proposed Permit Average Monthly	Proposed Permit Maximum Daily	Recommendation
57	Acenaphthylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.06		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
58	Anthracene	ug/L		0.43						110000	110,000.00	No	No	Y	Y		0.43		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
59	Benzidine	ug/L								0.00054	0.00054			Y	Y		1.8		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
60	Benzo(a)Anthracene	ug/L								0.0440	0.0440			Y	Y		0.022		N	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
61	Benzo(a)Pyrene	ug/L								0.0440	0.0440			Y	Y		0.012		N	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
62	Benzo(b)Fluoranthene	ug/L								0.0440	0.0440			Y	Y		0.27		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
63	Benzo(ghi)Perylene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.23		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
64	Benzo(k)Fluoranthene	ug/L								0.0440	0.0440			Y	Y		0.17		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
65	Bis(2-Chloroethoxy)Methane	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.54		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
66	Bis(2-Chloroethyl)Ether	ug/L		0.55						1.4	1.40	No	No	Y	Y		0.51		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
67	Bis(2-Chloroisopropyl)Ether	ug/L		0.49						170000	170,000.00	No	No	Y	Y		0.41		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
68	Bis(2-Ethylhexyl)Phthalate	ug/L		0.48						5.9	5.90	No	No	Y	Y			0.4809		B>C, Step 7		No	B>C, Step 7															No Limit
69	4-Bromophenyl Phenyl Ether	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.22		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
70	Butylbenzyl Phthalate	ug/L		0.26						5200	5200.00	No	No	Y	Y		0.26		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
71	2-Chloronaphthalene	ug/L		0.48						4300	4300.00	No	No	Y	Y		0.48		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
72	4-Chlorophenyl Phenyl Ether	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.48		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
73	Chrysene	ug/L								0.0440	0.0440			Y	Y		0.013		N	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
74	Dibenz(a,h)Anthracene	ug/L								0.0440	0.0440			Y	Y		0.19		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
75	1,2-Dichlorobenzene	ug/L		0.026						17000	17,000.00	No	No	Y	Y		0.026		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
76	1,3-Dichlorobenzene	ug/L		0.051						2600	2600.00	No	No	Y	Y		0.051		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
77	1,4-Dichlorobenzene	ug/L		0.05						2600	2600.00	No	No	Y	Y		0.05		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
78	3,3-Dichlorobenzidine	ug/L								0.077	0.08			Y	Y		0.43		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
79	Diethyl Phthalate	ug/L		0.34						120000	120,000.00	No	No	Y	Y		0.34		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
80	Dimethyl Phthalate	ug/L		0.23						2900000	2,900,000.00	No	No	Y	Y		0.23		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
81	Di-n-Butyl Phthalate	ug/L		0.23						12000	12,000.00	No	No	Y	Y		0.23		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
82	2,4-Dinitrotoluene	ug/L		0.48						1.1	1.10	No	No	Y	Y		0.48		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
83	2,6-Dinitrotoluene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.55		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
84	Di-n-Octyl Phthalate	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.31		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
85	1,2-Diphenylhydrazine	ug/L		0.48						0.54	0.54	No	No	Y	Y		0.48		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
86	Fluoranthene	ug/L		0.44						370	370.00	No	No	Y	Y		0.44		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
87	Fluorene	ug/L		0.53						14000	14,000.00	No	No	Y	Y		0.53		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
88	Hexachlorobenzene	ug/L								0.00077	0.00077			Y	Y		0.36		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
89	Hexachlorobutadiene	ug/L		0.37						50	50.00	No	No	Y	Y		0.37		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
90	Hexachlorocyclopentadiene	ug/L		0.24						17000	17,000.00	No	No	Y	Y		0.24		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
91	Hexachloroethane	ug/L		0.38						9.8	9.80	No	No	Y	Y		0.38		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
92	Indeno(1,2,3-cd)Pyrene	ug/L								0.0440	0.0440			Y	Y		0.28		Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
93	Isophorone	ug/L		0.41						600	600.00	No	No	Y	Y		0.41		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
94	Naphthalene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.44		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
95	Nitrobenzene	ug/L		0.47						1900	1900.00	No	No	Y	Y		0.47		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
96	N-Nitrosodimethylamine	ug/L		0.49						3.00	3.00	No	No	Y	Y		0.49		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
97	N-Nitrosodi-n-Propylamine	ug/L		0.63						1.40	1.40	No	No	Y	Y		0.63		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
98	N-Nitrosodiphenylamine	ug/L		0.56						16	16.00	No	No	Y	Y		0.6		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
99	Phenanthrene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.46		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
100	Pyrene	ug/L		0.48						11000	11,000.00	N/A	N/A	Y	Y		0.026		N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
101	1,2,4-Trichlorobenzene	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y		0.46		N	No Criteria	No Criteria	Uc	No Criteria															No Limit
102	Aldrin	ug/L					1.30			0.00014	0.00014			Y	Y					No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
103	alpha-BHC	ug/L		0.0013						0.013	0.0130	No	No	Y	Y					No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
104	beta-BHC	ug/L		0.0015						0.046	0.0460	No	No	Y	Y	0.0015			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
105	gamma-BHC	ug/L		0.0027			0.95			0.063	0.0630	No	No	Y	Y	0.0027			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
106	delta-BHC	ug/L		No Criteria							No Criteria	No Criteria	No Criteria	Y	Y	0.0016			N	No Criteria	No Criteria	Uc	No Criteria															No Limit
107	Chlordane	ug/L					0.09	0.004		0.00059	0.00059			Y	Y	0.28			Y	No detected value of B, Step 7		No	TMDL															No Limit
108	4,4-DDT	ug/L					0.13	0.001		0.00059	0.00059			Y	Y	0.028			Y	No detected value of B, Step 7		No	TMDL															No Limit
109	4,4-DDE (linked to DDT)	ug/L								0.00059	0.00059			Y	Y	0.0013			Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
110	4,4-DDD	ug/L								0.00084	0.00084			Y	Y	0.0013			Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
111	Dieldrin	ug/L					0.71	0.0019		0.00014	0.00014			Y	Y	0.028			Y	No detected value of B, Step 7		No	TMDL															No Limit
112	alpha-Endosulfan	ug/L		0.0021			0.03	0.0087		240	0.0087	No	No	Y	Y	0.0021			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
113	beta-Endosulfan	ug/L		0.0021			0.03	0.0087		240	0.0087	No	No	Y	Y	0.0021			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
114	Endosulfan Sulfate	ug/L		0.0012						240	240.00	No	No	Y	Y	0.0012			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
115	Endrin	ug/L		0.0013			0.04	0.0023		0.81	0.0023	No	No	Y	Y	0.0013			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
116	Endrin Aldehyde	ug/L		0.0018						0.81	0.81	No	No	Y	Y	0.0018			N	No detected value of B, Step 7		No	MEC=C & B is ND															No Limit
117	Heptachlor	ug/L					0.09	0.0038		0.00021	0.00021			Y	Y	0.0018			Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
118	Heptachlor Epoxide	ug/L					0.05	0.0036		0.00011	0.00011			Y	Y	0.00077			Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit
119-125	PCBs sum (2)	ug/L								0.00017	0.00017			Y	Y	0.24			Y	No detected value of B, Step 7		No	TMDL															No Limit
126	Toxaphene	ug/L					0.21	0.0002		0.00073	0.0003			Y	Y	0.18			Y	No detected value of B, Step 7		No	UD- effluent ND, MDL/C, and B is ND															No Limit

Notes:
Ud = Undetermined due to lack of data
Uc = Undetermined due to lack of CTR Water Quality Criteria
C = Water Quality Criteria
B = Background receiving water data