

**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>

**ORDER R4-2021-0095  
NPDES NUMBER CA0053856**

**WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF LOS ANGELES, TERMINAL ISLAND WATER RECLAMATION PLANT, LOS ANGELES COUNTY, DISCHARGE TO LOS ANGELES OUTER HARBOR VIA OUTFALL 001**

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

**Table 1. Discharger Information**

Discharger:	City of Los Angeles (City, Discharger, or Permittee)
Name of Facility:	Terminal Island Water Reclamation Plant (TIWRP or Facility)
Facility Address:	445 Ferry Street San Pedro, CA 90731-7416 Los Angeles County

**Table 2. Discharge Location**

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
001	Tertiary-treated effluent and brine waste	33.722725° N	118.242603° W	Los Angeles Outer Harbor

**Table 3. Administrative Information**

This Order was adopted on:	<b>June 10, 2021</b>
This Order shall become effective on:	<b>August 01, 2021</b>
This Order shall expire on:	<b>July 31, 2026</b>
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:	<b>180 days prior to the Order expiration date</b>
The United States Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	<b>Major</b>

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**.

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Renee Purdy, Executive Officer

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## 1. FACILITY INFORMATION

Information describing the Terminal Island Water Reclamation Plant (TIWRP or 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 (CWC) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It 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 through I are also incorporated into this Order.
- 2.3. **Provisions and Requirements Implementing State Law.** The provisions and requirements in subsections 4.2, 4.3, and 5.2 are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.
- 2.4. **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.
- 2.5. **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 Orders No. R4-2015-0119 and R4-2015-0119-A01, amending Order No. R4-2015-0119, are rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Los Angeles Water Board from taking enforcement action for violations of the previous Order.

### 3. DISCHARGE PROHIBITIONS

- 3.1. Discharge of treated wastewater at a location different from that described in this Order is prohibited.
- 3.2. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision 1.7. of Attachment D, Standard Provisions.
- 3.3. The monthly average effluent dry weather discharge flow rate from the facility shall not exceed 30 million gallons per day (mgd) and an instantaneous maximum of 66 mgd during wet weather storm events.
- 3.4. The Discharger shall not cause degradation of any water body, except as consistent with State Water Board Resolution No. 68-16.
- 3.5. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the California Water Code (CWC).
- 3.6. The discharge of any substances in concentrations toxic to human, animal, or aquatic life is prohibited.
- 3.7. The discharge of any radiological, chemical, or biological warfare agent is prohibited under CWC section 13375.
- 3.8. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.
- 3.9. The discharge of treated municipal wastewater to the Los Angeles Outer Harbor (Harbor) is prohibited as of December 31, 2024 with the exception of the occasional discharge of tertiary-treated effluent. The discharge of brine waste via the current outfall is authorized during this permit term (i.e., after December 31, 2024). The Discharger plans to cease the continuous discharge of tertiary-treated effluent from the Facility. Instead the Advanced Water Purification Facility (AWPF) at the TIWRP will provide advanced treated effluent to end users for indirect potable reuse and non-potable uses. In the Discharger's December 19, 2019 letter responding to the Los Angeles Water Board's inquiry about the future water recycling plan for the Facility, the Discharger stated that it is working with end users to reuse all tertiary-treated effluent generated at the Facility. Initially, the Discharger intended to cease the continuous discharge by 2020, but there have been delays in obtaining recycled water customer agreements with the end users, delays in the end users' on-site improvements to use recycled water in their facilities, and delays in completing the Discharger's recycled water distribution network of pipeline and pump station constructions. These recycled water related structures are expected to be complete in 2024. According to an email from the Discharger on December 22, 2020, the Discharger confirmed its intent to recycle all of its tertiary-treated effluent and cease the discharge to the Harbor by the end of 2024, except for the brine discharge and occasional discharges of tertiary-treated effluent when needed. After December 31, 2024, the Discharger shall notify the Los Angeles Water Board immediately of the necessity of discharge of any tertiary-treated effluent and describe which of following situations are applicable:

- 3.9.1. When the tertiary-treated effluent has been treated at the Advanced Water Purification Facility (AWPF) but does not comply with the groundwater recharge requirements or other Title 22 recycling criteria but complies with all NPDES permit requirements;
- 3.9.2. Emergency situations;
- 3.9.3. Fluctuations in planned recycled water demand; Executive Officer approval is required prior to discharge, except when emergency fluctuations in water recycling demand are due to end users' immediate shutdowns;
- 3.9.4. Scheduled maintenance activities of the AWPF. Executive Officer approval is required prior to discharge; or
- 3.9.5. When tertiary-treated effluent flows from the TIWRP exceed the AWPF capacity. Executive Officer approval is required prior to discharge, except when the discharge is due to unanticipated heavy rain and storm events.

After December 31, 2024, a detailed description of any tertiary effluent discharge to the Harbor associated with any of the above exceptions shall be reported in the monthly SMR per Section 11.3.3. of the MRP. These submittals shall include the flow rate, time of discharge, duration of discharge, type of discharge, and reason for discharge.

**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	Annual Average	Average Monthly	Average Weekly	Maximum Daily	Notes
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C)	mg/L	---	15	30	40	---
BOD <sub>5</sub> 20°C	lbs/day	---	3,800	7,500	10,000	a
Total Suspended Solids (TSS)	mg/L	---	15	30	40	---
TSS	lbs/day	---	3,800	7,500	10,000	a
Removal Efficiency for BOD and TSS	%	---	≥85	---	---	---
Oil and Grease	mg/L	---	10	---	15	---
Oil and Grease	lbs/day	---	2,500	---	3,800	a
Settleable Solids	mL/L	---	0.1	---	0.3	---
Total Residual Chlorine	mg/L	---	---	---	0.1	---
Total Residual Chlorine	lbs/day	---	---	---	25	a
MBAS	mg/L	---	33	---	---	b
MBAS	lbs/day	---	8,200	---	---	a
Total Ammonia as N	mg/L	---	58	---	120	b
Total Ammonia as N	lbs/day	---	15,000	---	30,000	a

Parameter	Units	Annual Average	Average Monthly	Average Weekly	Maximum Daily	Notes
Turbidity	NTU	---	18.5	---	60	b
Temperature	°F	---	---	---	92	f
Chronic Toxicity	Pass or Fail, % Effect (Test of Significant Toxicity (TST))	---	Pass	---	Pass or % Effect < 50	b, c, and d
Copper, Total Recoverable	µg/L	---	130	---	310	b
Copper, Total Recoverable	lbs/day	---	32	---	78	a
Nickel, Total Recoverable	µg/L	---	420	---	740	b
Nickel, Total Recoverable	lbs/day	---	100	---	180	a
Cyanide	µg/L	---	33	---	66	b
Cyanide	lbs/day	---	8.3	---	17	a
2,3,7,8-TCDD Equivalents	pg/L	---	0.014	---	0.027	---
2,3,7,8-TCDD Equivalents	lbs/day	---	3.5E-6	---	6.8E-6	a
Dibenzo(a,h)Anthracene	µg/L	---	3.2	---	6.5	b
Dibenzo(a,h)Anthracene	lbs/day	---	0.80	---	1.6	a
P,P'-DDT	µg/L	---	0.039	---	0.078	b
P,P'-DDT	lbs/day	---	0.0098	---	0.020	a
P,P'-DDD	µg/L	---	0.039	---	0.078	b
P,P'-DDD	lbs/day	---	0.0098	---	0.020	a
Copper	kg/yr	80.4	---	---	---	e
Lead	kg/yr	183.6	---	---	---	e
Zinc	kg/yr	1,845	---	---	---	e
Total PAH	kg/yr	1.056	---	---	---	e
Total DDT	g/yr	12.7	---	---	---	e
Total PCBs	g/yr	0.37	---	---	---	e

**Footnotes for Table 4**

- a. The mass-based effluent limitations are based on the allowable flow rate of 30 mgd, based on the design flow, and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.
- b. A dilution credit of 65 is approved for this constituent.
- c. A numeric Water Quality Based Effluent Limitation (WQBEL) is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. This final effluent limitation will be implemented using Short-term Methods for Estimating the Chronic Toxicity of Effluents and

Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995), current USEPA guidance in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010) ([https://www3.epa.gov/npdes/pubs/wet\\_final\\_tst\\_implementation2010.pdf](https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf)) and [EPA Regions 8, 9, and 10, Toxicity Training Tool \(January 2010\)](http://www2.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf), (<http://www2.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf>).

- 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”. The MMEL for chronic toxicity shall only apply when there is a discharge 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”.
- e. The Harbor Toxics TMDL mass-based WLAs to the Terminal Island WRP will become effective on March 23, 2032. The WLAs are based on a chemical specific sediment quality value multiplied by the 2009 annual average flow rate of the Terminal Island WRP of 15.6 MGD. The constituents to be monitored for each parameter shall be consistent with the Coordinated Compliance Monitoring and Reporting Plan approved by the Los Angeles Water Board on June 6, 2014, and any subsequent revisions as approved by the Executive Officer. The monitoring for these constituents shall be continued with quarterly monitoring until the final effluent limitations take effect; at which point the monitoring shall be as listed in Table E-3 of the MRP. The discharge volume at the time of permit modification or reissuance shall be used to calculate the mass-based effluent limitations consistent with the assumptions and requirements of these WLAs. The Discharger completed and submitted an Implementation Plan and a Contaminated Sediment Management Plan (CSMP) to the Los Angeles Water Board in 2018, as required by the Harbor Toxics TMDL. The CSMP is currently under review by the Regional Water Board. The results of the CSMP may be evaluated at the TMDL reconsideration to modify these WLAs as appropriate. If revised WLAs are warranted and are fully approved through the basin planning process, the effluent limit(s) can then be revised in the permit.
- f. Based on the maximum temperature of the Harbor during the previous permit term plus 20 degrees and in consideration of the dilution credit of 65, which has been approved for this constituent.

#### **End of Footnotes for Table 4**

- b. pH shall be maintained in the final effluent within the limits of 6.5 and 8.5.

#### **4.1.2. Interim Effluent Limitations – Not Applicable for Discharge Point 001**

4.2. Land Discharge Specifications – Not Applicable

4.3. Recycling Specifications

Pursuant Order No. R4-2016-0334 adopted by this Los Angeles Water Board on October 13, 2016, the production capacity of the AWPf at TIWRP is 12 MGD. There is currently one recycled water user, Water Replenishment District of Southern California (WRD), and two potential recycled water users, Air Products and Ultramar. The existing service connection to the Dominguez Gap Barrier (Barrier) has a capacity to receive 6 MGD. Two distribution system projects are being constructed by WRD to allow delivery of 9.5 MGD to the Barrier. After the City completes distribution system improvements



and the customers complete their on-site improvements required to convert to recycled water at their facilities, Ultramar will have average demand of 1 mgd and Air Products will have average demand of 2.5 MGD. To account for the shortage of 1 MGD, the City is initially implementing a potable water backup connection into the recycled water distribution system to fully serve all customers once everyone is on-line. For the sustainable future, the City is reaching out to other recycled water producers, i.e. West Basin, and the Joint Water Pollution Control Plant to augment the available recycled water supply to match current and future recycled water demand.

## 5. RECEIVING WATER LIMITATIONS

### 5.1. Surface Water Limitations

Receiving water limitations are based on the water quality objectives in the Basin Plan. The discharge shall not cause the following in the receiving water of the Los Angeles Outer Harbor:

5.1.1. The wastes discharged shall not cause the total ammonia water quality objective in U.S. EPA Ambient Water Quality Criteria for Ammonia (Saltwater)-1989, specified in the Basin Plan to be exceeded in the receiving waters.

#### 5.1.2. Bacteria Water Quality Objective

- a. Water Contact Recreation (REC-I): The Enterococci bacteria levels in the receiving water shall not exceed the following water quality objectives, as a result of wastes discharged:
  - i. Geometric Mean (six-week rolling) Limits: Enterococci shall not exceed 30 colony forming units (cfu)/100 mL or most probable number (MPN)/100 mL, calculated weekly.
  - ii. Statistical Threshold Value (STV): Enterococci STV of 110 cfu/100 mL or MPN/100 mL shall not be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.
- b. Shellfish Harvesting: At all areas where shellfish may be harvested for human consumption, as determined by the Los Angeles Water Board, the total coliform density in the receiving water shall not exceed the following water quality objectives, as a result of waste discharged:

The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70 MPN/100 mL, and no more than 10 percent of the sample collected during any 30-day period shall exceed 230 MPN/100mL.

5.1.3. Toxic pollutants shall not be present at levels that will bioaccumulate in aquatic life to levels, which are harmful to aquatic life or human health.

5.1.4. Water shall be free of substances that result in increases in the BOD, which adversely affect beneficial uses.

5.1.5. Water shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.

- 5.1.6. Surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use.
- 5.1.7. Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.
- 5.1.8. Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.
- 5.1.9. Waters shall not contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
- 5.1.10. Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the receiving water or on objects in the water, which causes nuisance or adversely affects beneficial uses.
- 5.1.11. The mean annual dissolved oxygen concentration shall be 6.0 mg/L or greater, provided that no single determination shall be less than 5.0 mg/L.
- 5.1.12. No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life.
- 5.1.13. The pH of the Los Angeles Inner Harbor shall not be depressed below 6.5 or raised above 8.5 as a result of the waste discharge. Ambient pH levels shall not be changed more than 0.2 units from natural conditions as a result of waste discharge.
- 5.1.14. Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
- 5.1.15. Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial use.
- 5.1.16. Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible aquatic resources, cause nuisance, or adversely affect beneficial uses.
- 5.1.17. Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses. At no time shall the temperature be raised above 86 °F outside the acute mixing zone as a result of waste discharges.
- 5.1.18. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration or other appropriate methods as specified by the State or Regional Board.
- 5.1.19. The wastes discharged shall not degrade surface water communities and populations including vertebrate, invertebrate, and plant species.

5.1.20. The wastes discharged shall not result in problems associated with breeding of mosquitoes, gnats, black flies, midges, or other pests.

5.1.21. Chronic Toxicity Receiving Water Quality Objective

- a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.
- b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

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. **Los Angeles Water Board Standard Provisions.** 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. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.
- b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Los Angeles Water Board, are prohibited.
- c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.
- d. Collection, treatment, and disposal systems shall be operated in a manner that precludes or impedes public contact with wastewater.
- e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Los Angeles Water Board.
- f. 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.
- g. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 311 of the CWA, related to oil and hazardous substances liability.
- h. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of 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.
- i. Discharge of wastes to any point other than specifically described in this Order is prohibited and constitutes a violation thereof.
  - j. 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, 403, and 405 of the federal CWA and amendments thereto.
  - k. 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.
  - l. The Facility shall be protected to reduce infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.
  - m. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.
  - n. A copy of these waste discharge specifications shall always be maintained and available to operating personnel at the discharge Facility.
  - o. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not always manned, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
  - p. The Discharger shall file with the Los Angeles Water Board a report of waste discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.
  - q. 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 and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board, 30 days prior to taking effect.
  - r. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.
  - s. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to 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. USEPA registration number, if applicable.
- t. Violation of any of the provisions of this Order may subject the Discharger to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- u. 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, 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.
- v. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation, or some combination thereof, depending on the violation, or upon the combination of violations. Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described herein, or any combinations thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- w. CWC section 13385(h)(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a “serious violation” is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to CWC section 13385.1(a)(1), a “serious violation” is also defined as “a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations.”
- x. CWC section 13385(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three non-serious violations within that time period.

- y. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, “effluent limitation” means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.
- z. CWC section 13387(e) 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 order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000), imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for 16, 20, or 24 months, or by both that fine and imprisonment. For a subsequent conviction, such a person shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) per day of violation, by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for two, three, or four years, or by both that fine and imprisonment.
- aa. 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) 213-620-2083 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 CI-2171 to [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov). Other noncompliance requires written notification as above at the time of the normal monitoring report.
- bb. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a watercourse, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change. (Wat. Code § 1211.)

## 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 by failure to disclose fully all relevant facts; or
  - 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, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

- b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity testing, monitoring of internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.
- c. This Order may be modified, in accordance with the provisions set forth in title 40 of the Code of Federal Regulations (40 CFR) parts 122 and 124 to include requirements for the implementation of a watershed protection management approach.
- d. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have reasonable potential to cause, or contribute to adverse impacts on beneficial uses or degradation of water quality of the receiving waters.
- e. 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.
- f. 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).
- 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. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Los Angeles Water Board will revise and modify this Order in accordance with such standards.
- i. This Order may be reopened and modified to revise effluent limitations as a result of future additions or amendments to a statewide water quality control plan or the Los Angeles Region's Basin Plan or the adoption of a TMDL for the Dominguez Channel – Los Angeles/Long Beach Watershed Management Area.
- j. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.
- k. 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 USEPA-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.
- l. 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.
- m. This Order may be reopened in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4), 122.62 and 124.5(c)(2) to modify final effluent limitations, if at the conclusion of necessary studies conducted by the Discharger, the Los Angeles Water Board determines that dilution credits, attenuation factors, water effects ratios, site specific objectives, or metal translators are warranted. If USEPA approves site-specific objectives for ammonia in downstream receiving water locations, this Order may be reopened to consider the site-specific objectives.
- n. This order may be reopened and modified to include any new outfalls for which an Engineering Report and Report of Waste Discharge (ROWD) has been submitted.
- o. This Order may be reopened and modified, to revise effluent limitations as a result of the zero discharge with the exception of the brine discharge from the Facility.

#### **6.3.2. Special Studies, Technical Papers and Additional Monitoring Requirements**

##### **a. Toxicity Reduction Requirements**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) work plan in accordance with Monitoring and Reporting Program section 6.1.6.

##### **b. Treatment Plant Capacity**

The Discharger shall submit a written report to the Executive Officer of the Los Angeles Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste



treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report, and certify that the Discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

- i. The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
- ii. The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and,
- iii. A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable in the case where the facility has not reached 75 percent of capacity as of the effective date of this Order. If the facility has reached 75 percent of capacity by that date but has not previously submitted such report, such a report shall be filed within 90 days of the issuance of this Order.

**c. Discharge Phase-Out Workplan**

The Discharger shall submit a discharge phase-out workplan to the Executive Officer of the Los Angeles Water Board for approval no later than three (3) months from the effective date of this Order. The discharge phase-out workplan shall describe plans for water recycling and the volume of recycled water for each end user, and a detailed schedule to cease the discharge of the tertiary-treated effluent from the Facility to the LA Harbor by December 31, 2024.

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

- a. **Stormwater Pollution Prevention Plan (SWPPP) – Not Applicable**
- b. **Spill Clean-up Contingency Plan (SCCP)**

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SCCP for the Facility, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Discharger's collection system or treatment facilities that reach water bodies, including dry channels and beach sands. At a minimum, the plan shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Discharger shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Discharger shall include a discussion in the annual summary report of any modifications to the Plan and the application of the Plan to all spills during the year.

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

Reporting protocols in MRP section 11.3.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are

provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

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

- i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or
- ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section 11.3.4.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the 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 (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Los Angeles Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
- vi. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Los Angeles Water Board including:
  - (1). All PMP monitoring results for the previous year
  - (2). A list of potential sources of the reportable priority pollutant(s);
  - (3). A summary of all actions undertaken pursuant to the control strategy; and

(4). A description of actions to be taken in the following year.

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

- a. **Certified Wastewater Treatment Plant Operator.** Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to California Code of Regulations (CCR), title 23, division 3, chapter 26 (CWC sections 13625 – 13633).
- b. **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 enclosed bays, estuaries or 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.
- c. **Alternate Power Source.** The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, wildfires, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

#### 6.3.5. **Special Provisions for Publicly-Owned Treatment Works (POTWs)**

- a. **Biosolids Disposal Requirements.**
  - i. All biosolids generated at the wastewater treatment plant must be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 CFR part 503. These requirements are enforced by USEPA. 40 CFR part 503 requirements identified in Attachment H are for information only and are not regulated by this Order.
  - ii. The Discharger is separately required to comply with the requirements in State Water Board Order No. 2004-0012-DWQ, General WDRs for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural and Land Reclamation Activities for those sites receiving the Discharger's biosolids which a Los Angeles Water Board has placed under this general order, and with the requirements in individual

WDRs issued by a Los Angeles Water Board for sites receiving the Discharger's biosolids.

**b. Pretreatment Requirements**

- i. The Discharger has developed and implemented a Pretreatment Program that was previously submitted to this Los Angeles Water Board. This Order requires implementation of the approved Pretreatment Program. Any violation of the Pretreatment Program will be considered a violation of this Order.
- ii. Any change to the program shall be reported to the Los Angeles Water Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR § 403.18
- iii. Applications for renewal or modification of this Order must contain information about industrial discharges to the POTW pursuant to 40 CFR § 122.21(j)(6). Pursuant to 40 CFR § 122.42(b) and provision VII. A of Attachment D, Standard Provisions, of this Order, the Discharger shall provide adequate notice of any new introduction of pollutants or substantial change in the volume or character of pollutants from industrial discharges which were not included in the permit application. Pursuant to 40 CFR § 122.44(j)(1), the Discharger shall annually identify and report, in terms of character and volume of pollutants, any Significant industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR § 403.
- iv. The Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order and shall submit a written technical report as required under section II of Attachment I. The Discharger shall submit to the Regional Board revised local limits, as necessary, for Los Angeles Water Board approval. In addition, the Discharger shall consider collection system overflow protection from such constituents as oil and grease, etc.
- v. The Discharger shall comply with requirements contained in Attachment I – Pretreatment Reporting Requirements.

**c. Collection System Requirements**

The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41(e)). The Discharger must report any non-compliance (40 CFR § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR § 122.41(d)).

**d. Filter Bypass**

Conditions pertaining to bypass are contained in Attachment D, Section 1.7 Standard Provisions – Permit Compliance. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters. These anticipated discharges

are approved under the bypass conditions when the resulting combined discharge of fully treated (tertiary) and partially treated (secondary) wastewater complies with the effluent and receiving water limitations in this Order.

### 6.3.6. Spill Reporting Requirements

#### a. Initial Notification

Although State and Los Angeles Water Board staff do not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

- i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than two hours after becoming aware of the release.
- ii. In accordance with the requirements of CWC section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than two hours after becoming aware of the release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550.
- iii. The Discharger shall notify the Los Angeles Water Board of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two hours after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal OES and the local health officer or the director of environmental health with jurisdiction over the affected water body. The phone number for reporting these releases of sewage to the Los Angeles Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Los Angeles Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Los Angeles Water Board:

- The location, date, and time of the release;
- The route of the spill including the water body that received or will receive the discharge;
- An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;

- If ongoing, the estimated flow rate of the release at the time of the notification; and,
- The name, organization, phone number and email address of the reporting representative.

**b. Monitoring**

For spills, overflows and bypasses reported under section 6.3.6.a, the Discharger shall monitor as required below:

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). The Discharger shall analyze the samples for total coliform, *E. coli* (if spill reaches the freshwater bodies, where the salinity is equal to or less than 1 part per thousand 95 percent or more of the time), *Enterococcus* (if spill reaches the marine waters, where the salinity is greater than 1 part per thousand more than 5 percent of time), and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). Daily monitoring shall be conducted from the time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

**c. Reporting**

The initial notification required under section 6.3.6.a. shall be followed by:

- i. As soon as possible, but not later than twenty-four hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to the Los Angeles Water Board by email at [augustine.anijelo@waterboards.ca.gov](mailto:augustine.anijelo@waterboards.ca.gov). If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:
  - Agency, NPDES No., Order No., and MRP CI No., if applicable;
  - The location, date, and time of the discharge;
  - The water body that received the discharge;
  - A description of the level of treatment of the sewage or other waste discharged;
  - An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;

- The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,
  - The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).
- ii. A written preliminary report five working days after disclosure of the incident is required. Submission to the Los Angeles Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to this Los Angeles Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a statewide General WDRs for Wastewater Collection System Agencies (SSS WDRs), may be submitted to the Los Angeles Water Board to satisfy this requirement). The written report shall document the information required in paragraph d below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.
- iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

**d. Records**

The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Los Angeles Water Board upon request and a spill summary shall be included in the annual summary report. The records shall contain:

- i. The date and time of each spill, overflow, or bypass;
- ii. The location of each spill, overflow, or bypass;
- iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section 6.3.6.b;
- iv. The cause of each spill, overflow, or bypass;
- v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
- vi. Any mitigation measures implemented;

- vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,
- viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSS WDRs.

**e. Activities Coordination**

Although not required by this Order, the Los Angeles Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, (ii) a Municipal Separate Storm Sewer Systems (MS4) NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSS WDRs.

**f. Consistency with SSS WDRs**

The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code sections 1311, 1342). The State Water Board adopted *General Waste Discharge Requirements for Sanitary Sewer Systems*, (WQ Order No. 2006-0003-DWQ; SSS WDRs) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSS WDRs requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSS WDRs, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSS WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order in sections 6.3.3.b. (SCCP Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Los Angeles Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs are considered the minimum thresholds (see finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Los Angeles Water Board will accept the documentation prepared by the dischargers under the SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.



### 6.3.7. Compliance Schedules – Not Applicable

## 7. COMPLIANCE DETERMINATION

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

### 7.1. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, 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).

### 7.2. Multiple Sample Data

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND. In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- 7.2.1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- 7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two 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.

### 7.3. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection 7.2 above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation 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) in cases where discretionary administrative civil liabilities are appropriate. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL.

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

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Discharger may collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples estimated from the "Multiple Sample Data Reduction" section above, will be used for compliance determination.

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

#### **7.4. Average Weekly Effluent Limitation (AWEL)**

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

#### **7.5. Maximum Daily Effluent Limitation (MDEL)**

If a daily discharge on a calendar day exceeds the MDEL for a given parameter, an alleged violation will be flagged, and the Discharger will be considered out of compliance for that day for that parameter. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

#### **7.6. Instantaneous Minimum Effluent Limitation**

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a potential 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).

#### **7.7. Instantaneous Maximum Effluent Limitation**

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a potential 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).

#### 7.8. Six-month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged, and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median 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  $\leq 0.75 \times$  Mean control response. A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.” The relative “Percent Effect” at the discharge IWC is defined and reported as:

$$((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$$

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  $\geq 0.50$ .

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 and 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 (1.5% 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 1.5% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis ( $H_0$ ) (see above) is statistically analyzed using the IWC (1.5%) 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 West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). 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). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the USEPA 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 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, USEPA, the State Water Board’s Quality Assurance Officer, or the State Water Board’s Environmental Laboratory Accreditation Program as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

#### 7.11. Percent Removal

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

$$\text{Percent Removal (\%)} = [1 - (C_{\text{Effluent}}/C_{\text{Influent}})] \times 100\%$$

When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

### 7.12. 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.

### 7.13. Compliance with single constituent effluent limitations

Dischargers may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section B “Multiple Sample Data Reduction” above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

### 7.14. Compliance with effluent limitations expressed as a sum of several constituents

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

### 7.15. Compliance with 2,3,7,8-TCDD Equivalents

TCDD equivalents shall be calculated using the following formula, where the MLs, and toxicity equivalency factors (TEFs) are as provided 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 minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$Dioxin\ Concentration = \sum_{i=1}^{17} (TEQi) = \sum_{i=1}^{17} (Ci)(TEFi)$$

where:

Ci = individual concentration of a dioxin or furan congener

TEFi = individual TEF for a congener

Congeners	MLs (pg/L)	TEFs
2,3,7,8-TetraCDD	10	1.0
1,2,3,7,8-PentaCDD	50	1.0
1,2,3,4,7,8-HexaCDD	50	0.1
1,2,3,6,7,8-HexaCDD	50	0.1
1,2,3,7,8,9-HexaCDD	50	0.1
1,2,3,4,6,7,8-HeptaCDD	50	0.01
OctaCDD	100	0.0001
2,3,7,8-TetraCDF	10	0.1
1,2,3,7,8-PentaCDF	50	0.05
2,3,4,7,8-PentaCDF	50	0.5
1,2,3,4,7,8-HexaCDF	50	0.1
1,2,3,6,7,8-HexaCDF	50	0.1

Congeners	MLs (pg/L)	TEFs
1,2,3,7,8,9-HexaCDF	50	0.1
2,3,4,6,7,8-HexaCDF	50	0.1
1,2,3,4,6,7,8-HeptaCDFs	50	0.01
1,2,3,4,7,8,9-HeptaCDFs	50	0.01
OctaCDF	100	0.0001

**7.16. Compliance with the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Effluent Limitations**

The Terminal Island Water Reclamation Plant discharges to the Los Angeles Outer Harbor. The Los Angeles and Long Beach Harbors are on the CWA section 303(d) list for one or more of the following pollutants: cadmium, chromium, copper, mercury, lead, zinc, chlordane, dieldrin, toxaphene, DDT, PCBs, PAHs, benthic community effects, and toxicity. These impairments exist in one or more environmental media – water, sediment, or tissue. For this discharge, the Harbor Toxics TMDL established mass-based final WLAs for pollutants associated with sediment. Federal regulations require that NPDES permits incorporate WQBELs consistent with the requirements and assumptions of any WLAs.

**7.17. Mass Emission Rate**

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lb/day)} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be taken in any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

## 7.18. Bacterial Standards and Analysis

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

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

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

- 7.18.2. 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.
- 7.18.3. 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 USEPA pursuant to 40 CFR part 136, or improved methods have been determined by the Executive Officer and/or USEPA.
- 7.18.4. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

## 7.19. Single Operational Upset (SOU)

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

- 7.19.1. An SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
- 7.19.2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision 5.5.2.2. of Attachment D – Standard Provisions.
- 7.19.3. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).
- 7.19.4. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

## 7.20. **Total Residual Chlorine**

For continuous total residual chlorine recording devices that require greater than one minute to level off after the detection of a spike: if it can be demonstrated that a stoichiometrically appropriate amount of dechlorination chemical has been added to effectively dechlorinate the effluent to 0.1 mg/L or less, then the exceedance over one minute, but not for more than five minutes, will not be considered to be a violation.



## ATTACHMENT A – DEFINITIONS

### **Arithmetic Mean ( $\mu$ )**

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

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

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

### **Average Monthly Effluent Limitation (AMEL)**

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

### **Average Weekly Effluent Limitation (AWEL)**

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

### **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 C.F.R. 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.

### **Satellite Collection System**

The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

### **Standard Deviation ( $\sigma$ )**

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

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

where:  $x$  is the observed value;  $\mu$  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 90<sup>th</sup> percentile of the water quality distribution of a bacterial population.

**Total DDT**

The sum of 4,4' DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.

**Total PCBs**

The sum of aroclors (or congeners).

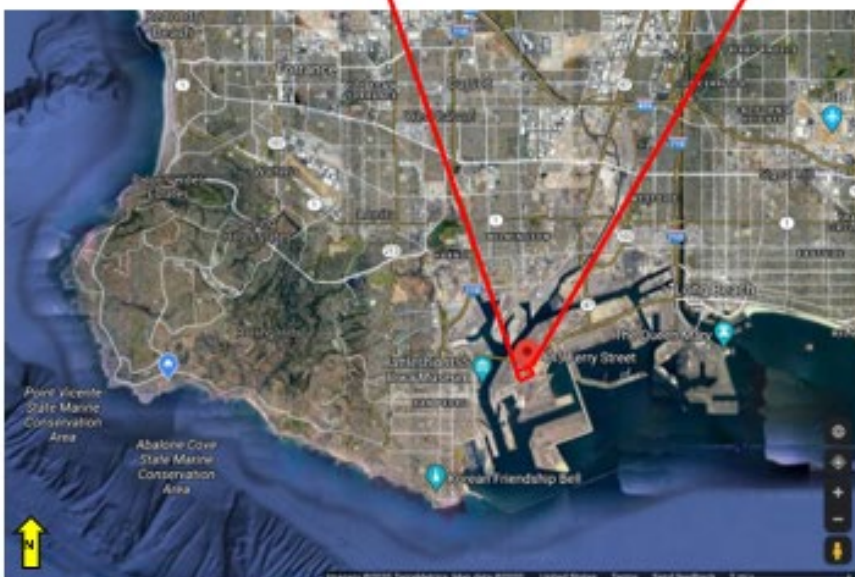
**Toxicity Identification Evaluation (TIE)**

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

**Toxicity 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.)

### ATTACHMENT B1 – MAP OF TIWRP VICINITY



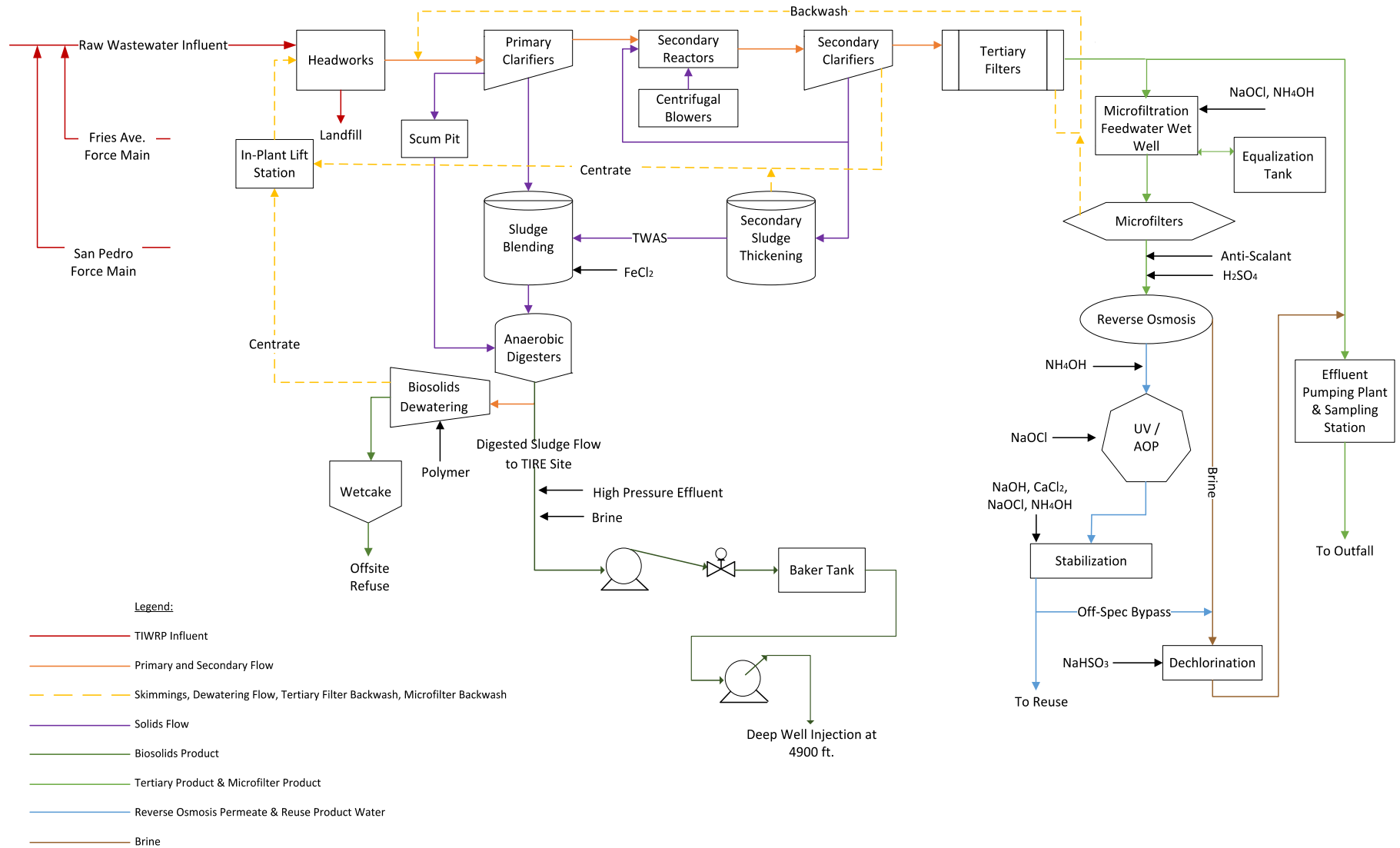


### ATTACHMENT B2 – TIWRP SITE LAYOUT



- |  |  |                                     |
|--|--|-------------------------------------|
| 1: Administration Building                         | 11: Sludge Dewatering Station                            | 21: AWPf Control Center             |
| 2: Headworks Station                               | 12: Solid Handling Station                               | 22: Effluent Pumping Plant Wet Well |
| 3: Primary Clarifiers                              | 13: Anaerobic Digester Tanks                             | 23: Effluent Pumping Plant          |
| 4: Aeration Tanks                                  | 14: Digester Gas Handling Station                        | 24: TIRE Site                       |
| 5: Aeration Blower Building                        | 15: Microfiltration Feedwater Wet Well                   | 25: In-Plant Lift Station           |
| 6: Secondary Clarifiers                            | 16: Equalization Tank                                    | 26: Annex Building                  |
| 7: Tertiary Treatment Station                      | 17: Microfiltration Station                              | 27: Maintenance Office              |
| 8: Sludge Blending Tank                            | 18: Reverse Osmosis Station                              | 28: Maintenance Shops and Warehouse |
| 9: Dissolved Air Floating Thickener Tank           | 19: AOP Station  |                                     |
| 10: Boilers Station (for Anaerobic Digester Tanks) | 20: AWPf Stabilization and Product Water Pumping Station |                                     |

### ATTACHMENT C – 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, USEPA, and/or their authorized representatives (including an authorized contractor acting as

their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 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 USEPA within a reasonable time, any information which the Los Angeles Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Los Angeles Water Board, State Water Board, or USEPA 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 USEPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)
- 5.2.2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 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 USEPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 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 electronically to the initial recipient defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 CFR part 3, 40 C.F.R. 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).)

5.6.3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR § 122.41(l)(1)(iii))

#### **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 USEPA, 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). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. USEPA will update and maintain this listing. (40 CFR § 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 USEPA, 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. Publicly Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Los Angeles Water Board of the following (40 CFR § 122.42(b)):

- 7.1.1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR § 122.42(b)(1)); and
- 7.1.2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 CFR § 122.42(b)(2).)
- 7.1.3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR § 122.42(b)(3).)

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP No. 2171)**

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. Water Code sections 13267 and 13383 also authorize the Los Angeles Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

### **1. GENERAL MONITORING PROVISIONS**

- 1.1. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during each quarter, and semiannual analyses shall be performed during the first quarter and third quarter. Annual analyses shall be performed during the third quarter. Results of monthly, quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-11 of the MRP.
- 1.2. 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 Board.
- 1.3. **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.
- 1.4. 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.
- 1.5. 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.
- 1.6. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed, and the method or procedure used must be specified in the monitoring report.
- 1.7. 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, Environmental Laboratory Accreditation Program, or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program.”

- 1.8. The monitoring report shall specify the USEPA 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.
- 1.9. 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.
- 1.10. 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.
- 1.11. 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:
  - 1.11.1. When the pollutant under consideration is not included in Appendix 4, SIP;
  - 1.11.2. 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;
  - 1.11.3. When the Discharger agrees to use an ML that is lower than those listed in Appendix 4;
  - 1.11.4. 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,
  - 1.11.5. When the Discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-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.

- 1.12. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, 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.
- 1.13. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Los Angeles Water Board upon request and a spill summary shall be included in the annual summary report.
- 1.14. 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, 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.
  - 1.14.1. 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 in advance by the USEPA pursuant to 40 CFR part 136.
  - 1.14.2. Detection methods used for *Enterococci* shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure*, or any improved method determined by the Los Angeles Water Board to be appropriate.
- 1.15. The Discharger shall ensure the results of the Discharge Monitoring Report - Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

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

## 2. REGIONAL MONITORING PROVISIONS

- 2.1. Pursuant to the Code of Federal Regulations [40 CFR, Section 122.41(j) and Section 122.48(b)], the monitoring program for a discharger receiving an NPDES permit must be designed to determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.



- 2.2. NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the current status of important ecological resources in the water body. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the near-shore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.
- 2.3. The Los Angeles Water Board and USEPA, working with other groups, have developed a comprehensive basis for effluent and receiving water monitoring appropriate to large Publicly Owned Treatment Works (POTWs) discharging to waters of the Southern California Bight. This effort has culminated in the publication by the Southern California Coastal Water Research Project (SCCWRP) of the Model Monitoring Program Guidance Document (Schiff, K.C., J.S. Brown and S.B. Weisberg. 2001. Model Monitoring Program for Large Ocean Dischargers in Southern California. SCCWRP Tech. Rep #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). This guidance provides the principles, framework and recommended design for effluent and receiving water monitoring elements which have guided development of the monitoring program described below.
- 2.4. The conceptual framework for the Model Monitoring Program has three components that comprise a range of spatial and temporal scales: (A) core monitoring; (B) regional monitoring; and (C) special studies.
- 2.4.1. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as some aspects of receiving water monitoring. In the monitoring program described below these core components are typically referred to as local monitoring.
- 2.4.2. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and a technical committee comprised of participating agencies and organizations, and is not specified in this permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this permit, these levels of effort are based upon past participation of the City of Los Angeles in regional monitoring programs.

The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Los Angeles Water Board and USEPA. The procedures and timelines for the Los Angeles Water Board and USEPA approval shall be the same as detailed for special studies, below.

2.4.3. Special studies under the Model Monitoring Program are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring, and arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature often ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

The Discharger, Los Angeles Water Board and USEPA shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies to the Los Angeles Water Board and USEPA by December 30, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a spring Los Angeles Water Board meeting, to obtain approval from the Los Angeles Water Board and USEPA, and to inform the public. Upon approval of the Los Angeles Water Board and USEPA, the Discharger shall implement its special study or studies.

2.5. The Discharger's participation in regional monitoring programs is required as a condition of this permit. The Discharger shall complete collection and analysis of samples in accordance with the schedule established by the Steering Committee directing the Bight-wide regional monitoring surveys. The level of participation shall be similar to that provided by the Discharger in previous regional surveys conducted in 1994, 1998, 2003, 2008, 2013, and 2018. The Discharger is currently working with the Southern California Coastal Water Research Project. The report of the Bight-wide regional monitoring surveys is expected to publish in the Bight 2023. The regional programs which must be conducted under this permit include:

2.5.1. Future Southern California Bight regional surveys, including benthic infauna, sediment chemistry, fish communities, fish predator risk.

2.5.2. Santa Monica Bay Restoration Project's Seafood Safety Survey – the level of participation shall be equivalent to that outlined by the Santa Monica Bay Restoration Commission's Local Seafood Safety monitoring design.

2.6. Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated by SCCWRP with dischargers, agencies, and numerous other entities. While participation in regional programs is required under this permit, revisions to the Terminal Island monitoring program at the direction of the Los Angeles Water Board and USEPA may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site-specific water issues of concern. These revisions may

include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer and USEPA upon written notification to the Discharger.

**3. 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**

Location	Monitoring Location Name	Monitoring Location Description
Influent	Influent Monitoring Station INF-001	The influent monitoring location shall be located at each point of inflow to the sewage treatment plant and located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained.  Latitude: 33.74388° Longitude: -118.26193°
Effluent	Effluent Monitoring Station EFF-001 (Discharge Point 001)	The effluent sampling station shall be located downstream of any in- plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. The current effluent sampling station meets the above requirements and captures tertiary treated effluent as well as brine waste discharged from the Advanced Water Purification Facility (AWPF).  Latitude: 33.74514° Longitude: -118. 26161°
Receiving Water	Quality Monitoring Station HW20	Latitude: 33.727361° Longitude: -118.232917°
Receiving Water	Quality Monitoring Station HW21	Latitude: 33.726361° Longitude: -118.236667°
Receiving Water	Quality Monitoring Station HW23	Latitude: 33.724167° Longitude: -118.244028°
Receiving Water	Quality Monitoring Station HW24	Latitude: 33.723083° Longitude: -118.247778°
Receiving Water	Quality Monitoring Station HW33	Latitude: 33.722100° Longitude: -118.243400°

<b>Location</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
Receiving Water	Quality Monitoring Station HW40	Latitude: 33.724861° Longitude: -118.231056°
Receiving Water	Quality Monitoring Station HW41	Latitude: 33.723778° Longitude: -118.234694°
Receiving Water	Quality Monitoring Station HW43	Latitude: 33.721583° Longitude: -118.242222°
Receiving Water	Quality Monitoring Station HW44	Latitude: 33.720778° Longitude: -118.245806°
Receiving Water	Quality Monitoring Station HW47	Latitude: 33.715778° Longitude: -118.265500°
Receiving Water	Quality Monitoring Station HW49	Latitude: 33.711111° Longitude: -118.278611°
Receiving Water	Quality Monitoring Station HW50	Latitude: 33.722083° Longitude: -118.229167°
Receiving Water	Quality Monitoring Station HW51	Latitude: 33.721056° Longitude: -118.232722°
Receiving Water	Quality Monitoring Station HW53	Latitude: 33.718694° Longitude: -118.240083°
Receiving Water	Quality Monitoring Station HW54	Latitude: 33.717583° Longitude: -118.243889°
Receiving Water	Quality Monitoring Station HW56	Latitude: 33.712222° Longitude: -118.259083°
Receiving Water	Quality Monitoring Station HW62	Latitude: 33.717306° Longitude: -118.234500°
Receiving Water	Quality Monitoring Station HW63	Latitude: 33.716111° Longitude: -118.238111°
Receiving Water	Quality Monitoring Station HW64	Latitude: 33.714861° Longitude: -118.241861°
Receiving Water	Quality Monitoring Station HW65	Latitude: 33.709278° Longitude: -118.253250°
Receiving Water	Microbiological Monitoring Station HW16	Latitude: 33.722222° Longitude: -118.261667°

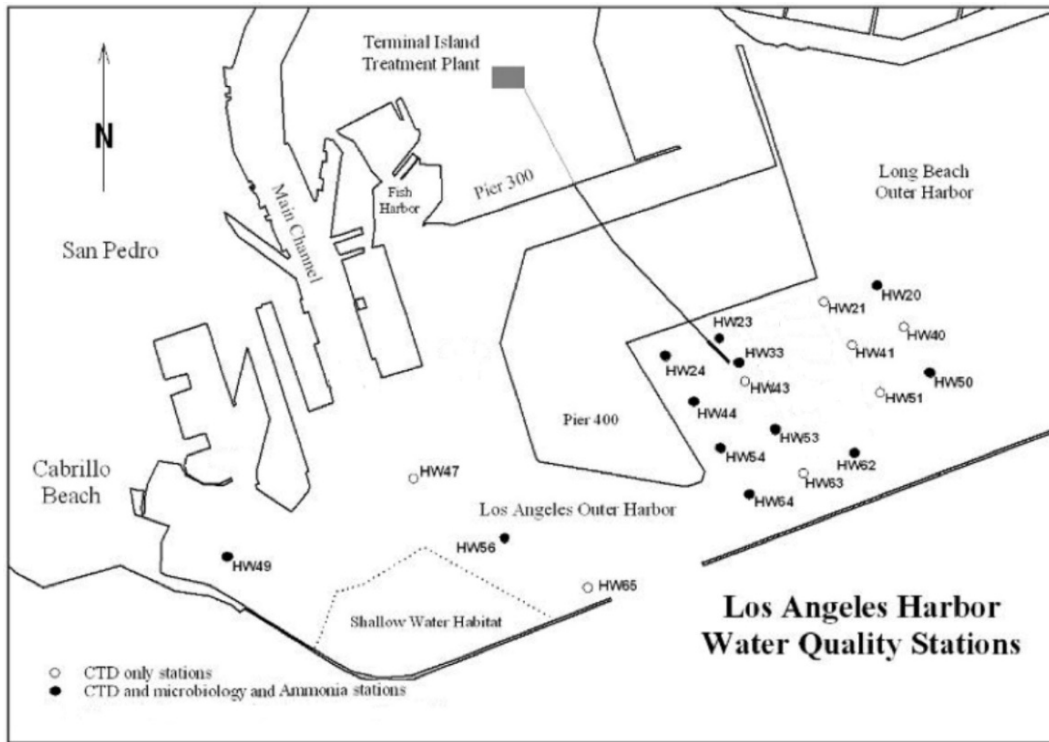
<b>Location</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
Receiving Water	Microbiological Monitoring Station HW20	Latitude: 33.727361° Longitude: -118.232917°
Receiving Water	Microbiological Monitoring Station HW23	Latitude: 33.724167° Longitude: -118.244028°
Receiving Water	Microbiological Monitoring Station HW24	Latitude: 33.723083° Longitude: -118.247778°
Receiving Water	Microbiological Monitoring Station HW29	Latitude: 33.715833° Longitude: -118.277220°
Receiving Water	Microbiological Monitoring Station HW33	Latitude: 33.722100° Longitude: -118.243400°
Receiving Water	Microbiological Monitoring Station HW44	Latitude: 33.720778° Longitude: -118.245806°
Receiving Water	Microbiological Monitoring Station HW49	Latitude: 33.711111° Longitude: -118.278611°
Receiving Water	Microbiological Monitoring Station HW50	Latitude: 33.722083° Longitude: -118.229167°
Receiving Water	Microbiological Monitoring Station HW53	Latitude: 33.718694° Longitude: -118.240083°
Receiving Water	Microbiological Monitoring Station HW54	Latitude: 33.717583° Longitude: -118.243889°
Receiving Water	Microbiological Monitoring Station HW56	Latitude: 33.712222° Longitude: -118.259083°
Receiving Water	Microbiological Monitoring Station HW62	Latitude: 33.717306° Longitude: -118.234500°
Receiving Water	Microbiological Monitoring Station HW64	Latitude: 33.714861° Longitude: -118.241861°
Receiving Water	Chronic Toxicity Monitoring Station HW20	Latitude: 34.727361° Longitude: -118.232917°
Receiving Water	Chronic Toxicity Monitoring Station HW62	Latitude: 33.717306° Longitude: -118.234500°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM2	Latitude: 33.723056° Longitude: -118.244861°

<b>Location</b>	<b>Monitoring Location Name</b>	<b>Monitoring Location Description</b>
Receiving Water	Macrofaunal and Sediment Monitoring Station HM3	Latitude: 33.722722° Longitude: -118.242611°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM4	Latitude: 33.725917° Longitude: -118.232139°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM6	Latitude: 33.721333° Longitude: -118.243889°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM7	Latitude: 33.722083° Longitude: -118.229167°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM8	Latitude: 33.718694° Longitude: -118.240083°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM9	Latitude: 33.716056° Longitude: -118.238194°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM10	Latitude: 33.713556° Longitude: -118.245278°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM11	Latitude: 33.712278° Longitude: -118.259028°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM12	Latitude: 33.712778° Longitude: -118.270917°
Receiving Water	Macrofaunal and Sediment Monitoring Station HM13	Latitude: 33.710833° Longitude: -118.234667°
Receiving Water	Trawl Sampling Station HT5A	Latitude: 33.707420° Longitude: -118.230200°
Receiving Water	Trawl Sampling Station HT7	Latitude: 33.723889° Longitude: -118.244778°
Receiving Water	Trawl Sampling Station HT9	Latitude: 33.725972° Longitude: -118.235000°
Receiving Water	Trawl Sampling Station HT10	Latitude: 33.714306° Longitude: -118.243417°
Receiving Water	Trawl Sampling Station HT12	Latitude: 33.720778° Longitude: -118.245806°
Receiving Water	Trawl Sampling Station HT13	Latitude: 33.717306° Longitude: -118.234500°

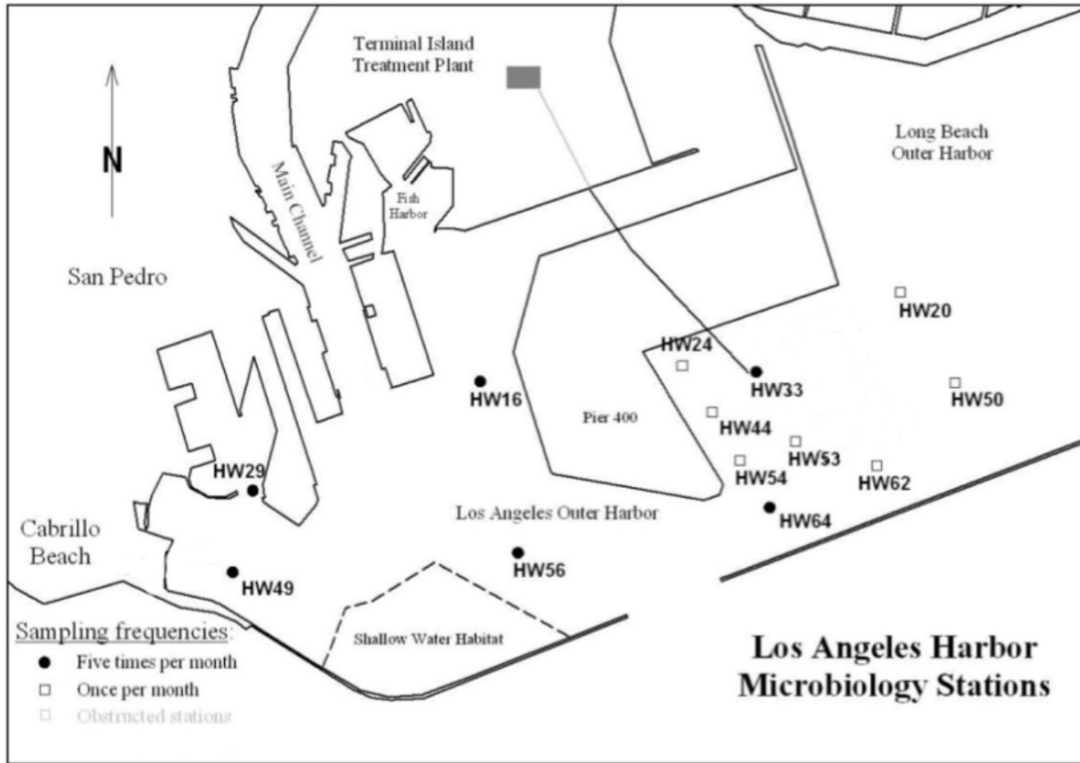
Location	Monitoring Location Name	Monitoring Location Description
Receiving Water	Harbor Toxic TMDL Sampling Station ID#8	Latitude: 33.714661° Longitude: -118.242389°
Receiving Water	Harbor Toxic TMDL Sampling Station ID#9	Latitude: 33.714661° Longitude: -118.263405°

The north latitude and west longitude information in Table E-1 are approximate for administrative purposes. See Figures E-1 to E-5 for all receiving water monitoring stations.

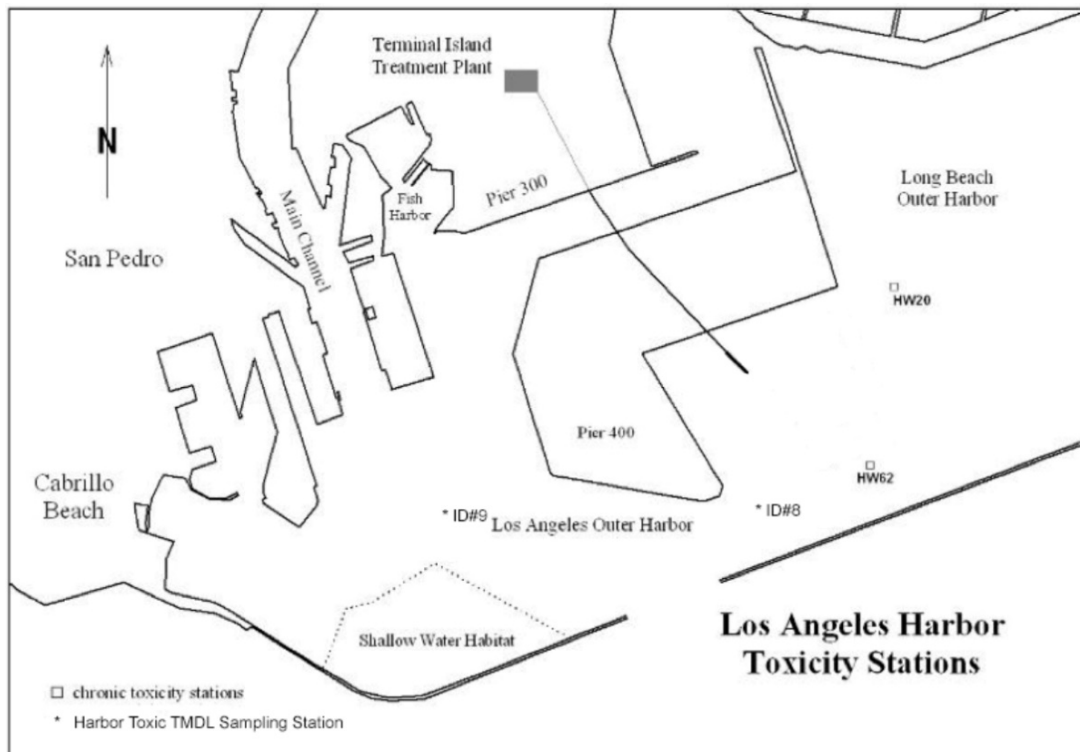
**Figure E-1 Locations of Water Quality Monitoring Stations**



**Figure E-2 Locations of Microbiological Monitoring Stations**

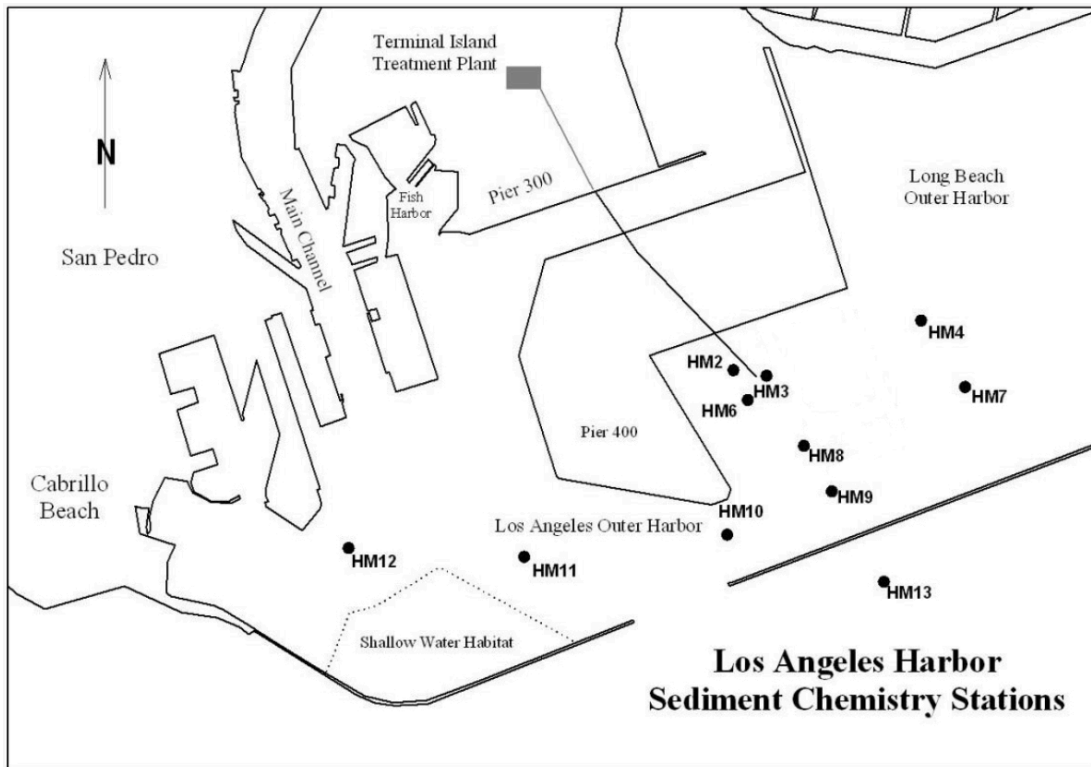


**Figure E-3 Locations of Chronic Toxicity Monitoring Stations**





**Figure E-4 Locations of Macrofaunal and Sediment Monitoring Stations**



**Figure E-5 Locations of Trawling Stations**



#### 4. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to determine compliance with NPDES permit conditions, assess treatment plant performance and assess effectiveness of the pretreatment program.

##### Monitoring Locations INF-001

The Discharger shall monitor influent to the facility at INF-001 as follows.

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Applicable Notes
Flow	mgd	Recorder	Continuous	a
pH	pH unit	Grab	Weekly	b
Temperature	°F	Grab	Weekly	b
Total Suspended Solids (TSS)	mg/L	24-hour composite	Weekly	b
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C)	mg/L	24-hour composite	Weekly	b
Copper	µg/L	24-hour composite	Quarterly	b
Mercury	µg/L	24-hour composite	Quarterly	b and e
Nickel	µg/L	24-hour composite	Quarterly	b
Cyanide	µg/L	Grab	Quarterly	b
Dibenzo(a,h)Anthracene	µg/L	Grab or 24-hour composite	Quarterly	b and f
4,4-DDT	µg/L	Grab or 24-hour composite	Quarterly	b and f
4,4-DDD	µg/L	Grab or 24-hour composite	Quarterly	b and f
Pesticides	µg/L	Grab or 24-hour composite	Semiannually	c, and f
Chromium III (Total Chromium - Chromium VI)	µg/L	Calculated	Semiannually	--
Remaining priority pollutants excluding asbestos	µg/L	24-hour composite; grab or composite for VOCs Bis (2-ethylhexyl) phthalate, Chromium III, Chromium VI, and Total Chromium	Semiannually	b, d, and f

**Notes for Table E-2**

- a. Total daily flow and instantaneous peak daily flow (24-hr basis) shall be reported. The actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).
- b. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
- c. Pesticides specified in 40 CFR, Part 125.58(p) include demeton, guthion, malathion, methoxychlor, mirex, and parathion. USEPA method 614 covers demeton, guthion, malathion, and parathion. USEPA method 617 covers methoxychlor and mirex. Both methods are for municipal and industrial wastewater.
- d. Priority pollutants are those constituents referred to in 40 CFR 401.15; a list of these pollutants is provided as Appendix A to 40 CFR 423.
- e. Mercury shall be analyzed using EPA method 1631E, per 40 CFR 136.
- f. The 40 CFR Part 136 method for these pollutants requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all volatile organic compounds including semi-volatile organic compounds, pesticides, phthalate esters including bis (2-ethylhexyl) phthalate, and PCBs unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all semi-volatile organic compounds, pesticides, phthalate esters, and PCBs as long as the sample bottles are glassware.

**End of Notes for Table E-2**

**5. EFFLUENT MONITORING REQUIREMENTS**

Effluent monitoring is required to:

- Determine compliance with National Pollutant Discharge Elimination System (NPDES) permit conditions and water quality standards.
- Assess and improve plant performance and identify operational problems.
- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.
- Determine reasonable potential analysis for toxic pollutants.
- Determine waste load allocation compliance and TMDL effectiveness.

**5.1. Monitoring Location EFF-001**

The Discharger shall monitor the combined discharge of tertiary-treated effluent and brine waste discharged from the AWPf at EFF-001 as follows. If more than one

analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total waste flow	mgd	recorder	continuous	a and b
Turbidity	NTU	recorder	continuous	a and b
Total residual chlorine	mg/L	recorder	continuous	a and b
Temperature	°F	grab	weekly	b and c
pH	pH units	grab	weekly	b and c
Settleable solids	mL/L	grab	weekly	b
Total Suspended Solids (TSS)	mg/L	24-hour composite	weekly	b
BOD <sub>5</sub> 20°C	mg/L	24-hour composite	weekly	b
Oil and grease	mg/L	grab	weekly	b
Dissolved oxygen	mg/L	grab	weekly	b
Ammonia Nitrogen	mg/L	24-hour composite	monthly	b and d
Nitrate + Nitrite (as nitrogen)	mg/L	24-hour composite	monthly	b and d
Organic nitrogen	mg/L	24-hour composite	monthly	b and d
Total nitrogen	mg/L	24-hour composite	monthly	b and d
Surfactants (MBAS)	mg/L	24-hour composite	monthly	b
Surfactants (CTAS)	mg/L	24-hour composite	monthly	b
Chronic toxicity	Pass or Fail, % Effect (TST)	24-hour composite	monthly	b and e
Copper	µg/L and kg	24-hour composite	monthly/quarterly	b and f
Lead	µg/L and kg	24-hour composite	monthly/quarterly	b and f
Zinc	µg/L and kg	24-hour composite	monthly/quarterly	b and f

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total PAHs	µg/L and kg	24-hour composite	monthly/quarterly	b and f
Total DDT	µg/L and g	24-hour composite	monthly/quarterly	b and f
Total PCBs	µg/L and g	calculated	annually/quarterly	b and f
Nickel	µg/L	24-hour composite	monthly	b
Cyanide	µg/L	grab	monthly	b
Dibenzo(A,H)anthracene	µg/L	grab or 24-hour composite	monthly	b and g
4,4'-DDT	µg/L	grab or 24-hour composite	monthly	b and g
4,4'-DDD	µg/L	grab or 24-hour composite	monthly	b and g
Antimony	µg/L	24-hour composite	quarterly	b
Arsenic	µg/L	24-hour composite	quarterly	b
Beryllium	µg/L	24-hour composite	quarterly	b
Cadmium	µg/L	24-hour composite	quarterly	b
Chromium III (Total Chromium - Chromium VI)	µg/L	Calculated	quarterly	b
Chromium (VI)	µg/L	grab	quarterly	b
Mercury	µg/L	24-hour composite	quarterly	b and h
Selenium	µg/L	24-hour composite	quarterly	b
Silver	µg/L	24-hour composite	quarterly	b
Thallium	µg/L	24-hour composite	quarterly	b
Bromoform	µg/L	grab	quarterly	b
Dibromochloromethane	µg/L	grab	quarterly	b
2-Chloroethyl Vinyl Ether	µg/L	grab	quarterly	b
Chloroform	µg/L	grab	quarterly	b
Bromodichloromethane	µg/L	grab	quarterly	b
Methylene Chloride	µg/L	grab	quarterly	b
Toluene	µg/L	grab	quarterly	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
2,4,6-Trichlorophenol	µg/L	Grab or 24-hour composite	quarterly	b and g
Benzo(A)pyrene	µg/L	grab or 24-hour composite	semiannually	b and g
Bis(2-Chloroisopropyl)ether	µg/L	grab or 24-hour composite	semiannually	b and g
Bis(2-Ethylhexyl)phthalate	µg/L	grab or 24-hour composite	quarterly	b and g
Butylbenzyl Phthalate	µg/L	grab or 24-hour composite	semiannually	b and g
Diethyl Phthalate	µg/L	grab or 24-hour composite	quarterly	b and g
Di-N-Butyl Phthalate	µg/L	grab or 24-hour composite	semiannually	b and g
Indeno(1,2,3-CD)pyrene	µg/L	grab or 24-hour composite	quarterly	b and g
Phenanthrene	µg/L	grab or 24-hour composite	quarterly	b and g
Pyrene	µg/L	grab or 24-hour composite	quarterly	b and g
PCBs as Aroclors	µg/L	grab or 24-hour composite	quarterly	g and i
PCBs as Congeners	µg/L	grab or 24-hour composite	annually	g and j
Pesticides	µg/L	grab or 24-hour composite	semiannually	g and k
Tributyltin	ng/L	24-hour composite	semiannually	b
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hour composite	semiannually	b and l
2,3,7,8-TCDD Equivalents	pg/L	24-hour composite	semi-annually	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Remaining priority pollutants excluding asbestos	µg/L	24-hour composite; grab for VOCs and Total Chromium	semiannually	b, g, and m

**Footnotes for Table E-3**

- a. Where continuous monitoring of a constituent is required, the following shall be reported:
  - i. Total waste flow – Total daily and peak daily flow (24-hour basis);
  - ii. Turbidity – A flow-weighted 24-hour composite sample may be used in place of the recorder to determine the flow-proportioned average daily value.
  - iii. Total residual chlorine – maximum value within a calendar day.
- b. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
- c. USEPA recommends using USEPA method 1600 or other equivalent method to measure culturable enterococci.
- d. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total Kjeldahl nitrogen, pH, and temperature sampling shall be conducted as close to concurrently as possible.
- e. The Discharger shall conduct whole effluent toxicity monitoring as outlined in section 6. Please refer to section 6.1.7. of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as “Pass” or “Fail.” The maximum daily single result shall be reported as “Pass or Fail” and “% Effect.” When there is a discharge on more than one day in a calendar month period, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”
- f. Monitoring for these constituents is necessary to comply with the Harbor Toxics TMDL WLA, and the quarterly monitoring is required for these constituents until the final effluent limitations take effect; at which point the monitoring frequencies shall be as listed in Table E-3. The mass-based results shall be reported as both a monthly average (where appropriate) and the total mass over the calendar year. The constituents to be monitored for each parameter shall be consistent with the Coordinated Compliance Monitoring and Reporting Plan approved by the Los Angeles Water Board June 06, 2014, and any subsequent revisions as approved by the Executive Officer.
- g. The 40 CFR Part 136 method for these pollutants requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or

elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all volatile organic compounds including semi-volatile organic compounds, pesticides, phthalate esters including bis (2-ethylhexyl) phthalate, and PCBs unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all semi-volatile organic compounds, pesticides, phthalate esters, and PCBs as long as the sample bottles are glassware.

- h. Mercury shall be analyzed using EPA method 1631E, per 40 CFR 136.
- i. PCBs as aroclors shall be analyzed using USEPA method 608.3.
- j. PCBs as congeners shall be analyzed using method EPA 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, dischargers should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.
- k. Pesticides are, for the purposes of this order, those six constituents referred to in 40 CFR, Part 125.58(p) (demeton, guthion, malathion, methoxychlor, mirex, and parathion). USEPA method 614 covers demeton, guthion, malathion, and parathion. USEPA method 617 covers methoxychlor and mirex. Both methods are for municipal and industrial wastewater.
- l. Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If radium-226 & 228 exceeds the stipulated criteria of 5 pCi/L, based on Title 22 California Code of Regulations sections 6442 and 6443, analyze for tritium, strontium-90 and uranium. The incorporation by reference is prospective including future changes to incorporate provisions as changes take effect.
- m. Priority pollutants are those constituents referred to in 40 CFR 401.15; a list of these pollutants is provided as Appendix A to 40 CFR 423.

### **End of Footnotes for Table E-3**

## **5.2. Total Residual Chlorine Additional Monitoring**

Continuous monitoring of total residual chlorine at the current location shall serve as an internal trigger for the increased grab sampling at EFF-001 if either of the following occurs, except as noted in item 5.2.3.:

- 5.2.1. Total residual chlorine concentration excursions of up to 0.3 mg/L lasting greater than 15 minutes; or
- 5.2.2. Total residual chlorine concentration peaks in excess of 0.3 mg/L lasting greater than 1 minute.



5.2.3. Additional grab samples need not be taken if it can be demonstrated that a stoichiometrically appropriate amount of dechlorination chemical has been added to effectively dechlorinate the effluent to 0.1 mg/L or less for peaks in excess of 0.3 mg/L lasting more than 1 minute, but not for more than five minutes.

## 6. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

### 6.1. Chronic Toxicity

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

The chronic toxicity IWC for this discharge is 1.5 percent  $[100/(65+1)]$  effluent.

#### 6.1.2. 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.

#### 6.1.3. Chronic Marine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity  $\geq 1$  parts per thousand (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 or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

- a. A static renewal toxicity test with the topmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01).
- b. 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).
- c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

#### 6.1.4. Species Sensitivity Screening

The first species sensitivity screening under this Order shall be initiated in March 2022. The Permittee shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As

allowed under the test method for the *Atherinops affinis*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required.

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the discharge is intermittent and discharges only during wet weather, rescreening is not required. If rescreening is necessary, the Permittee shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive, then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Permittee may proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

The species used to conduct the receiving water monitoring shall be the most sensitive species from the most recent species sensitivity screening.

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

#### **6.1.5. Quality Assurance and Additional Requirements**

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

- a. 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 ( $H_0$ ) for the TST approach is: Mean discharge IWC response  $\leq 0.75 \times$  Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as:  $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$ . This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations - in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the

IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.

- b. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies 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.”
- c. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA,600/R-95/136, 1995)(See Table E-4, below), then the Discharger must re-sample and re-test within 14 days.

**Table E-4. USEPA Methods and Test Acceptability Criteria**

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Topsmelt, <i>Atherinops affinis</i> , Larval Survival and Growth Test Method 1006.01. (Table 3 of Test Method)	80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.85 mg. LC50 with copper must be ≤ 205 µg/L, <25% MSD for survival and <50% MSD for growth. (required)
Purple Sea Urchin, <i>Strongylocentrotus purpuratus</i> , and the Sand Dollar, <i>Dendraster excentricus</i> , Fertilization Test Method 1008.0 (Table 7 of Test Method)	70% or greater egg fertilization in controls, must achieve a MSD of <25%, and appropriate sperm counts. (required)
Red Abalone, <i>Haliotis rufescens</i> , Larval Shell Development Test Method (Table 3 of Test Method)	80% or greater normal shell development in the controls; must have statistically significant effect at 56 µg/L zinc and achieve a MSD of <20%. (required)
Giant Kelp, <i>Macrocystis pyrifera</i> , Germination and Growth Test Method 1009.0 (Table 3 of Test Method)	70% or greater germination in controls, ≥ 10 µm germ-tube length in controls, NOEC must be below 35 µg/L in the reference toxicant test, and must achieve a MSD of <20% for both germination and germ-tube length in the reference toxicant. (required)

- d. Dilution 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.

- e. Monthly reference toxicant testing is sufficient. All reference toxicant test results shall be reviewed and reported using the EC25.

EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

- f. 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 rationale is explained in the Fact Sheet (Attachment F).

#### **6.1.6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the 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 USEPA 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)*. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. 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. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
- b. A description of the 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.
- c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

#### **6.1.7. Accelerated Monitoring Schedule for Median Monthly Summary Result: "Fail"; and Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail and % Effect $\geq$ 50."**

When there is discharge on more than one day in a calendar month, the Median Monthly summary result shall be used to determine if accelerated testing needs to be conducted. When there is discharge on only one day in a calendar month, the Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within seven calendar days for the *Strongylocentrotus purpuratus*, *Haliotis rufescens*, or *Dendraster excentricus* test, and within five (5) calendar days for both the *Atherinops affinis* and *Macrocystis pyrifera* tests. The accelerated monitoring schedule shall consist of four toxicity tests

(including IWC), conducted at approximately two-week intervals, over an eight-week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in “Pass”, the Discharger shall return to routine monitoring for the next monitoring period.

#### **6.1.8. 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.

- a. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *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:
  - i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
  - ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
  - iii. A schedule for these actions, progress reports, and the final report.
- b. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *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.
- c. 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.

- d. 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.
- e. 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.
- f. The Board may consider the results of any TIE/TRE studies in an enforcement action.

#### **6.1.9. 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:

- a. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-13.
- b. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- c. The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.
- d. 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.
- e. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- f. Tabular data and graphical plots clearly showing the laboratory's performance for the reference toxicant, for each solution, for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.
- g. 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.

## **6.2. Ammonia Removal**

6.2.1. 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 no 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 concentrations 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 is due to ammonia.

6.2.2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, 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.

## **6.3. Chlorine Removal**

Except with prior approval from the Executive Officer of the Los Angeles Water Board, chlorine shall not be removed from bioassay samples.

## **7. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)**

## **8. RECYCLING MONITORING REQUIREMENTS**

Recycling monitoring requirements are issued and regulate the treated effluent generated at the Facility for the following recycling programs:

8.1. Harbor Water Recycling Project - Nonpotable Reuse Project. Order No. R4-2003-0025 was adopted by this Los Angeles Water Board on January 30, 2003. Order No. R4-2011-0033 amending Order No. R4-2003-0025 was adopted by this Los Angeles Water Board on February 3, 2011. Both orders regulate the treated effluent for nonpotable applications on irrigation, industrial uses, and recreational uses.

8.2. Harbor Water Recycling Project – Dominguez Gap Barrier Project. Order No. R4-2016-0334 was adopted by this Los Angeles Water Board on October 13, 2016. This order regulates the treated effluent for seawater intrusion prevention and groundwater augmentation.

8.3. Recycling monitoring requirements are separately specified in CI Numbers 8537 and 8654 for Order No. R4-2011-0033 and Order No. R4-2016-0334, respectively.

## **9. RECEIVING WATER MONITORING REQUIREMENTS**

All receiving water stations shall be located by state-of-the-art navigational methods (e.g. Differential Global Positioning Systems); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations. Forty-one (41) stations are located around the outfall, harbor, shallow water habitat, near Cabrillo Beach, and outside of the harbor. These stations are used to collect samples of water quality, bacteria, benthos, sediment chemicals, and fish tissue.

In the event that a sampling station is temporarily or permanently obstructed for reasons including, but not limited to, construction activities for creating new habitat, storage sites, or pier, the station may be abandoned upon notification of the Los Angeles Water Board once final determination is made regarding the status of such station.

The Permittee shall report the locations (latitude and longitude) of any relocated stations to the Los Angeles Water Board within 15 days of the effective date of this order or within 15 days after a station(s) become(s) obstructed. All receiving water stations may be subject to re-designation by the Los Angeles Water Board.

If any of the monitoring requirements listed below are conducted during the same season and location as the monitoring requirements in the Coordinated Compliance Monitoring and Reporting Plan required under the Harbor Toxics TMDL, then those monitoring requirements do not need to be duplicated. In lieu of duplicative sampling, the permittee may submit the monitoring data, a report interpreting the data, and related QA/QC documentation in the corresponding monitoring report required under this Order.

### **9.1. Harbor Water Quality Monitoring**

9.1.1. Sampling shall consist of quarterly water quality surveys for water quality profiles, weather and sea-surface observations, and discrete samples conducted during the 1<sup>st</sup> quarter (January, February, and March), the 2<sup>nd</sup> quarter (April, May, and June), the 3<sup>rd</sup> quarter (July, August, and September), and the 4<sup>th</sup> quarter (October, November, and December). Surface discrete samples shall be taken at 12 stations (HW20, HW23, HW24, HW33, HW44, HW49, HW50, HW53, HW54, HW56, HW62, and HW64, Figure E-1) for microbiological and ammonia analysis. For priority pollutant monitoring, monitoring station HW23 and HW33 will be used to collect background condition of the receiving water for toxic pollutants. Depth profiles for salinity, temperature, transmissivity, density, dissolved oxygen, chlorophyll, and pH shall be conducted quarterly at all 20 harbor stations (HW20, HW21, HW23, HW24, HW33, HW40, HW41, HW43, HW44, HW47, HW49, HW50, HW51, HW53, HW54, HW56, HW62, HW63, HW64, and HW65, Figure E-1). Profiles shall be extended from the surface to as close to the bottoms as practicable using standard oceanographic sampling procedures. The monitoring parameter shall be coordinated with conductivity- temperature-depth (CTD) operations in order to obtain discrete samples simultaneously with commencement of the CTD cast.



**Table E-5. Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Applicable Notes
Salinity	psu	Discrete sampling at specified depths	quarterly	a and b
Temperature	°F	Discrete sampling at specified depths	quarterly	a and b
Transmissivity	% transmission	Discrete sampling at specified depths	quarterly	a and c
Density	Kg/m <sup>3</sup>	Discrete sampling at specified depths	quarterly	a and b
Dissolved oxygen	mg/L	Discrete sampling at specified depths	quarterly	a and b
Chlorophyll	µg/l	Discrete sampling at specified depths	quarterly	a and b
pH	pH units	Discrete sampling at specified depths	quarterly	a and b
<i>Enterococcus</i>	MPN/100mL or CFU/100mL	Surface	quarterly	b and d
Ammonia	mg/L	Surface	quarterly	b and d
Observation	---	---	quarterly	e
Priority pollutants excluding asbestos	µg/L	Grab at surface	Semi-annually	b, f, and g

**Footnotes for Table E-5**

- a. Depth profile measurement shall be obtained by using multiple sensors to measure parameters throughout the entire water column (from the surface within the first 0.5 m to 2 m above the seabed, or as close to the bottom as practicable).
- b. Pollutants shall be analyzed using the analytical methods described in 40 CFR Section 136; where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
- c. Light transmittance (transmissivity) shall be measured with a transmissometer. Results shall be expressed as the percent of light transmittance. Path length of transmissometer should be noted.
- d. All harbor bacteriological and ammonia samples shall be collected just below the surface within the first 0.5 meter.

- e. Receiving Water Observations of mosquitoes, gnats, black flies, midges, or other pests, water color, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported.
- f. Priority pollutants are those constituents referred to in 40 CFR 401.15. A list of these pollutants is provided as Appendix A to 40 CFR 423. Priority pollutants shall be collected and analyzed at HW23 and HW33. During the permit cycle, the semi-annual samples shall be collected for the first three years, thereafter, only annual samples are required. All samples shall be collected just below the surface within the first 0.5 meter.
- g. Mercury shall be analyzed using EPA method 1631E, per 40 CFR Section 136.

**End of Footnotes for Table E-5**

- 9.1.2. In the event of stormy weather that makes sampling hazardous or impractical, these samples can be omitted, provided that such omissions do not occur in consecutive weeks or in more than four weeks in a calendar year.
- 9.1.3. If a kelp bed is present at any of the 20 harbor stations (HW20, HW21, HW23, HW24, HW33, HW40, HW41, HW43, HW44, HW47, HW49, HW50, HW51, HW53, HW54, HW56, HW62, HW63, HW64, and HW65), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monthly monitoring reports.

**9.2. Microbiological Monitoring**

- 9.2.1. Microbiological monitoring shall be conducted at 6 stations (HW16, HW29, HW33, HW49, HW56, and HW64, Figure E-2) as follows:

**Table E-6. Bacteria Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Applicable Notes
Total coliform	MPN/100mL or CFU/100mL	Surface	5 times/month	a, b, and c
Enterococcus	MPN/100mL or CFU/100mL	Surface	5 times/month	a, b, and c
Observations	---	---	5 times/month	d

**Footnotes for Table E-6**

- a. In addition to reporting the actual concentration of bacterial organisms in each sample collected from shoreline and harbor stations, the median of the latest 6-month period shall also be determined and reported.
- b. All harbor bacteriological samples shall be collected just below the surface within the first 0.5 meter.

- c. Pollutants shall be analyzed using the analytical methods described in 40 CFR Section 136; where no methods are specified for a given pollutant, by methods approved by this Los Angeles Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.
- d. Receiving Water Observations of water color, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported. Daily rainfall data should be obtained from the National Weather Service for the Los Angeles Civic Center.

**End of Footnotes for Table E-6**

9.2.2. Microbiological monitoring shall be conducted at 7 stations (HW20, HW24, HW44, HW50, HW53, HW54, and HW62, Figure E-2) as follows:

**Table E-7. Additional Bacteria Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Applicable Notes
Observations	---	---	monthly	a

**Footnotes for Table E-7**

- a. Receiving Water Observations of water color, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported. Daily rainfall data should be obtained from the National Weather Service for the Los Angeles Civic Center.

**End of Footnotes for Table E-7**

In the event of stormy weather that makes sampling hazardous or impractical, these samples can be omitted, provided that such omissions do not occur in consecutive weeks or in more than four weeks in a calendar year.

If a kelp bed is present at any thirteen (13) harbor stations (Figure E-2), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monthly monitoring reports.

If another stakeholder, or interested party in the watershed conducts a similar study or similar monitoring as that which is specified in this MRP, then the Permittee may, in lieu of duplicative sampling, submit the results of the study and other relevant

information, such as raw data, related QA/QC documentation, etc., in the corresponding monitoring report.

**9.3. Chronic Toxicity Monitoring**

9.3.1. Chronic toxicity monitoring shall be conducted at two (2) harbor stations (HW20 and HW62, Figure E-3) as follows.

**Table E-8. Chronic Toxicity Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Applicable Note
Chronic Toxicity	Pass or Fail, % Effect (TST)	Mid-depth	Quarterly/Semiannually	a

**Footnotes for Table E-8**

a. The Permittee shall conduct Whole Effluent Toxicity monitoring as outlined in section 6. Please refer to section 6.1.7. of the MRP for the accelerated monitoring schedule. The median monthly summary result is a threshold value for a determination of not meeting the narrative receiving water objective and shall be reported as “Pass” or “Fail”. The maximum daily single result is a threshold value for the determination of meeting the narrative receiving water objective and shall be reported as “Pass” or “Fail” and “% Effect”. Up to three independent toxicity tests may be conducted when one toxicity test results in “Fail”. If the chronic toxicity median monthly threshold at the ambient receiving water locations are not met and the toxicity cannot be attributed to ambient toxicity, as assessed by the Permittee, then the Permittee shall initiate accelerated monitoring. If the chronic toxicity median monthly threshold of the receiving water at the ambient receiving water stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented.

**End of Footnotes for Table E-8**

- 9.3.2. In the event of stormy weather that makes sampling hazardous or impractical, these samples may be omitted.
- 9.3.3. If a kelp bed is present at any of the 2 harbor stations (Figure E-3), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monitoring reports.
- 9.3.4. Toxicity monitoring and the other monitoring shall be conducted at the harbor stations on the same day, if practical.
- 9.3.5. If two years of data do not show any exceedances, then the sample frequency will be reduced from quarterly to semiannually. In the event of an additional exceedance, the sampling frequency shall be immediately increased back to quarterly, until two years of data no longer show any exceedances.

## 9.4. Harbor Bottom Monitoring

### 9.4.1. Sediment/Chemical Monitoring

One sample (upper five centimeters) shall be collected at eleven (11) harbor stations (HM2 to HM4 and HM6 to HM13, Figure E-4) with a VanVeen sediment grab and analyzed for the following parameters during the third quarter of each year (July, August, and September). If a kelp bed is present at any of the 11 harbor stations (Figure E-4), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monitoring reports.

**Table E-9. Harbor Bottom Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Arsenic	mg/kg	Grab	Annually	---
Cadmium	mg/kg	Grab	Annually	---
Chromium	mg/kg	Grab	Annually	---
Copper	mg/kg	Grab	Annually	---
Lead	mg/kg	Grab	Annually	---
Mercury	mg/kg	Grab	Annually	---
Nickel	mg/kg	Grab	Annually	---
Silver	mg/kg	Grab	Annually	---
Zinc	mg/kg	Grab	Annually	---
Chlorinated Phenolic Compounds	mg/kg	Grab	Annually	---
Non-chlorinated Phenolic Compounds	mg/kg	Grab	Annually	---
Total Halogenated Organic Compounds	mg/kg	Grab	Annually	---
Aldrin	µg/kg	Grab	Annually	---
Dieldrin	µg/kg	Grab	Annually	---
Endrin	µg/kg	Grab	Annually	---
Hexachlorocyclohexane	µg/kg	Grab	Annually	---
Chlordane	µg/kg	Grab	Annually	a
Total DDT (Sum of all DDT Derivatives)	µg/kg	Grab	Annually	---
DDT Derivatives	µg/kg	Grab	Annually	b
PCBs as Congeners	µg/kg	Grab	Annually	c

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
PCBs as aroclors	µg/kg	Grab	Annually	d
Toxaphene	µg/kg	Grab	Annually	---
Total PAH (Sum of the PAH Derivatives)	mg/kg	Grab	Annually	e
PAH Derivatives	mg/kg	Grab	Annually	f
Acid Volatile sulfides	mg/kg	Grab	Annually	---
Pesticides	µg/kg	Grab	Annually	g
Ammonia Nitrogen	mg/kg	Grab	Annually	---
Heptachlor	µg/kg	Grab	Annually	---
Heptachlor epoxide	µg/kg	Grab	Annually	---
Endosulfan I	µg/kg	Grab	Annually	---
Endosulfan II	µg/kg	Grab	Annually	---
Endosulfan sulfate	µg/kg	Grab	Annually	---
Detected Priority Pollutants	mg/kg	Grab	Annually	h
Compounds on local 303(d) List	mg/kg	Grab	Annually	---
Dissolved sulfides (pore water)	mg/kg	Grab	Annually	---
TOC	mg/kg	Grab	Annually	---
Grain Size	% by weight	Grab	Annually	i

**Footnotes for Table E-9**

- a. At a minimum, chlordane monitoring includes both the alpha and gamma congeners.
- b. At a minimum, 4,4' DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
- c. At a minimum, chlorinated biphenyl congeners whose analytical characteristics resemble those of 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 shall be individually quantified.
- d. At a minimum, chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.
- e. Total PAH includes both total high molecular weight PAHs and total low molecular weight PAHs.

- f. At a minimum acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.
- g. Pesticides are, for the purposes of this order, those six constituents referred to in 40 CFR Part 125.58(p) (demeton, guthion, malathion, methoxychlor, mirex, and parathion).
- h. Detected priority pollutants are those previously measured in detectable concentrations in effluent, sludge, sediment and tissue analyses. A tentative list of detected priority pollutants shall be submitted to the Executive Officer for approval prior to conducting the priority pollutant analyses.
- i. Sufficiently detailed to calculate percent weight in relation to phi size.

#### **End of Footnotes for Table E-9**

If a kelp bed is present at any of the 11 harbor stations (Figure E-4), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monitoring reports.

#### **9.4.2. Sediment Toxicity Monitoring**

The Discharger shall conduct annual sediment toxicity monitoring in conjunction with the sediment chemical monitoring described above at all eleven monitoring stations (HM2 to HM4 and HM6 to HM13, Figure E-4). Testing shall be conducted using the amphipod species *Eohaustorius estuarius* using an approved USEPA test method. Test results shall be reported as percent survival and shall be included in the annual monitoring report.

#### **9.4.3. Local Benthic survey**

This survey investigates how benthic conditions under the influence of the discharge are changing over time, if at all. The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence of the discharge.

- a. Eleven (11) harbor stations (HM2 to HM4 and HM6 to HM13, Figure E-4) shall be sampled annually during the 3<sup>rd</sup> quarter (July, August, and September) for benthic monitoring following protocol described in the most current edition of the Field Operations Manual for Marine Water-Column, Benthic and Trawl Monitoring in southern California. One sample shall be taken at each station for benthic infauna for community analyses by means of a 0.1 m<sup>2</sup> (1.1 ft<sup>2</sup>) modified VanVeen sediment grab sampler. The entire contents of each sample shall be passed through a 1.0-mm screen to retrieve the benthic organisms.

Community analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance per station, Benthic Response Index (BRI) or other appropriate indices, plus utilize appropriate regression analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques.

- b. The following determinations shall be made for each station, where appropriate: identification of all organisms to lowest possible taxon; community structure analysis for each station; mean, range standard deviation, and 95% confidence limits, if appropriate, for value determined in the community analysis. The discharger may be required to conduct additional “statistical analyses” to determine temporal and spatial trends in the marine environment.

If a kelp bed is present at any of the eleven (11) harbor stations (Figure E-4), sampling shall be conducted at the edge of the kelp bed. The actual locations of all sampling stations shall be reported in the monitoring reports.

#### **9.4.4. Local Demersal Fish and Invertebrate Survey**

This survey investigates how the health of demersal fish and epibenthic invertebrate communities in the vicinity of the discharge are changing over time, if at all. The data collected are used for regular assessment of temporal trends in community structure along an array of sites within the influence of the discharge.

- a. Six (6) trawling stations (HT5A, HT7, HT9, HT10, HT12, and HT13, Figure E-5) shall be sampled biannually in the 3<sup>rd</sup> quarter (July, August, and September) and the 1<sup>st</sup> quarter (January, February, and March) for demersal fish and epibenthic invertebrates following protocol described in the most current edition of the Field Operations Manual for Marine Water-Column, Benthic and Trawl Monitoring in Southern California. Trawling shall be conducted at each station with a standard 7.62-meter head rope otter trawl (1.5-inch mesh in the body at the net and 0.5-inch mesh in the cod end), towed parallel to the specified depth contour for a duration of 5 minutes (elapsed bottom time) at a uniform speed approximately 2.0 knots.
- b. Fish and invertebrates collected by trawls shall be identified to the lowest possible taxon. Fish shall be size-classed. An attempt should be made to size-class all fish. For the rare occasions when size classing is not possible (e.g., a huge catch of a single species), a subsample of several hundred fish should be measured. When this occurs, the reason should be noted on the data sheet. Wet-weight biomass shall be estimated for all species. Community structure analyses shall be conducted for each station. Community structure analyses include wet weight of fish and invertebrate species (all individuals of a species should be collectively weighted to the nearest 0.1Kg), number of species, number of individuals per species, total numerical abundance per station, number of individuals in each 1-centimeter size class for each species of fish, species of richness, species diversity (e.g., Shannon-Wiener), species evenness and dominance, similarity analysis (e.g., Bray-Curtis, Jaccard, or Sorenson) cluster analyses or other appropriate multivariate statistical techniques approved by the Executive Officer. Mean, standard, deviation, and 95% confidence limits, if appropriate, shall be calculated for these values. Abnormalities and disease symptoms shall be described and recorded (e.g. Fin erosion, lesions, tumors, parasites and color abnormalities).

#### **9.4.5. Local Bioaccumulation Trends Survey**



This survey investigates how fish tissue contamination in the vicinity of the outfall is changing over time, if at all. The data collected are used for regular assessment of temporal trends in white croaker (*Genyonemus lineatus*) tissue.

- a. Muscle and liver tissue analyses for selected priority pollutants and lipids shall be conducted annually on white croaker. Ten individuals shall be collected by divers with spear guns or by hand, hook and line, or trawl, within the Outer Harbor.

The **ten** largest individuals of each fish species collected shall be analyzed. All white croaker shall be larger than 125 millimeters (standard length). Standard length, weight, and gonadal index shall be recorded.

- b. Each individual muscle tissue sample shall be analyzed separately. Liver tissue samples from each site may be combined to form two composites representing five individuals each or each individual liver tissue may be analyzed separately.
- c. Tissue samples from white croaker shall be analyzed for the following priority pollutants and other parameters: total DDT, DDT derivatives, total PCB, PCB derivatives, wet weight, and % lipid.

#### 9.4.6. Local Seafood Safety Survey

This survey investigates whether or not seafood concentrations are below levels that will ensure public safety.

- a. Muscle tissue analyses for selected priority pollutants and lipids shall be conducted annually on a sport fish other than white croaker. Ten individuals shall be collected by divers with spear guns or by hand, hook and line, or trawl, from within the Outer Harbor.

The **ten** largest individuals of each fish species collected shall be analyzed. All sport fish shall be larger than 125 millimeters (standard length). Standard length, weight, and gonadal index shall be recorded.

- b. Each individual muscle tissue sample shall be analyzed separately.
- c. Tissue samples from the sport fish shall be analyzed for the following priority pollutants and other parameters: total DDT, DDT derivatives, total PCB, PCB derivatives, wet weight, and % lipid.

### 9.5. Outfall Monitoring

The outfall shall be inspected a minimum of once every five years. Inspections shall include general observations and photographic records of the outfall pipes and surrounding ocean bottom. A detailed structural analysis of the pipes shall be conducted using underwater television/videotape and visual inspection, where appropriate, to provide a comprehensive report on the discharge pipe system from shallow water to its respective terminus. Additional parameters for analysis may be added to this list by the Executive Officer.

## 10. OTHER MONITORING REQUIREMENTS

### 10.1. Regional Monitoring

The goals of the Watershed-wide Monitoring Program for the Dominguez Channel – Los Angeles/Long Beach Watershed Management Area are to determine compliance with receiving water limits; monitor trends in surface water quality; ensure protection of beneficial uses; provide data for modeling contaminants of concern; characterize water quality including seasonal variation of surface waters within the watershed; assess the health of the biological community; and determine mixing dynamics of effluent and receiving waters in the estuary.

Regional monitoring may include benthic surveys, demersal fish and invertebrate surveys, and predator risk surveys, but may add or delete surveys as directed by the Steering Committee.

#### 10.1.1. Regional Benthic Survey

- a. This regional survey addresses the questions: 1) “What is the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight?”; and 2) “What is the relationship between biological response and contaminant exposure?” The data collected will be used to assess the condition of the sea-floor environment and the health of the biological communities in the Bight.
- b. Sampling Design - A regional survey of benthic conditions within the Southern California Bight took place in 2018 (Bight '18). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee. The Permittee provided support to the Bight '18 benthic survey by participating in or performing the following activities:

Participation on the Steering Committee

Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Benthos, and Chemistry)

Field sampling at sea

Infaunal sample analysis

Sediment chemistry analysis

Data management

This level of participation shall be consistent with that provided by the Permittee during the 2018 Regional Benthic Survey. The next regional survey is expected to take place in 2023.

#### 10.1.2. Regional Demersal Fish and Invertebrate Survey

- a. This regional survey addresses the questions: 1) “What is the extent, distribution, magnitude and trend of ecological change in demersal fish and epibenthic invertebrate communities within the Southern California Bight?” and 2) “What is the relationship between biological response and contaminant exposure?” The data collected will be used to assess the condition of the sea-floor environment and health of biological resources in the Bight.

- b. Sampling Design - A regional survey of trawl-caught demersal fish and epibenthic invertebrates within the Southern California Bight took place in 2018 (Bight '18). The final survey design was determined cooperatively by the participants as represented in the Regional Steering Committee. The Permittee provided support to the Bight '18 survey by participating in or performing the following activities:

- Participation on the Steering Committee

- Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Fish & Invertebrates)

- Field sampling at sea

- Tissue chemical analysis

- Data management

This level of participation shall be consistent with that provided by the Permittee to the 2018 Regional Benthic Survey. The next regional survey is expected to occur in 2023.

#### 10.1.3. Regional Seafood Safety Survey

- a. This regional survey addresses the question: "Are seafood tissue levels within the Southern California Bight below levels that ensure public safety?" The data collected will be used to assess levels of contaminants in the edible tissue of commercial or recreationally important fish within the Bight relative to Advisory Tissue Concentrations.
- b. Sampling Design - A regional survey of edible tissue contaminant levels in fish within the Southern California Bight shall be conducted at least once every ten years, encompassing a broader set of sampling sites and target species than those addressed in the local seafood survey. The objective is to determine whether any unexpected increases or decreases in contaminant levels have occurred in non-target species and/or at unsampled sites. The final survey design may be determined cooperatively by participants represented on a Regional Steering Committee or by the State of California's Office of Environmental Health and Hazard Assessment. The Discharger shall provide support to a Regional Seafood Safety Survey by participating in or performing the following activities:

- Participation on a Steering Committee

- Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, and Chemistry)

- Field sampling at sea

- Tissue chemical analysis

- Data management

The Permittee's participation shall be consistent with that provided by the Permittee to similar regional bioaccumulation surveys.

#### 10.1.4. Regional Predator Risk Survey

- a. This regional survey addresses the question: “Are fish body burdens within the Southern California Bight a health risk to higher trophic levels in the marine food web?” The data collected will be used to estimate health risk to marine birds, mammals and wildlife from the consumption of fish tissue.
- b. Sampling Design - A regional survey of whole fish body burdens of contaminants within the Southern California Bight took place in 2018 (Bight '18). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee. The Discharger provided support to the Bight '18 Predator Risk Survey by participating in or performing the following activities:

Participation on the Steering Committee

Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, and Chemistry)

Field sampling at sea

Tissue chemical analysis

This level of participation shall be consistent with that provided by the Discharger to the 2018 Regional Predator Risk Survey. The next regional survey is expected to occur until in 2023.

#### 10.1.5. Harbor Toxics TMDL Monitoring

The Permittee shall follow the Coordinated Compliance Monitoring and Reporting Plan submitted to the Los Angeles Water Board and approved by the Executive Officer of the Los Angeles Water Board on June 06, 2014.

The Los Angeles Water Board Executive Officer may reduce, increase, or modify monitoring and reporting requirements, as necessary, based on the results of the TMDL monitoring program. Currently, several of the constituents of concern have numeric targets that are lower than the readily available detection limits. As analytical methods and detection limits continue to improve (i.e., development of lower detection limits) and become more environmentally relevant, responsible parties shall incorporate new method detection limits in the MRP and QAPP.

If any of the monitoring requirements listed below are conducted during the same season and location as the monitoring requirements in the Coordinated Compliance Monitoring and Reporting Plan required under the Harbor Toxics TMDL, then those monitoring requirements do not need to be duplicated. In lieu of duplicative sampling, the permittee may submit the monitoring data, a report interpreting the data, and related QA/QC documentation in the corresponding monitoring report required under this Order.

#### 10.2. Tertiary Filter Treatment Bypasses

10.2.1. During any day that filters are bypassed, the Discharger shall monitor the effluent daily for BOD, suspended solids, settleable solids, and oil and grease, until it is demonstrated that the filter “bypass” has not caused an adverse impact on the receiving water.

10.2.2. The Discharger shall maintain chronological log of tertiary filter treatment process bypasses, to include the following:

- a. Date and time of bypass start and end;
- b. Total duration time; and,
- c. Estimated total volume bypassed

10.2.3. The Discharger shall submit a written report to the Los Angeles Water Board, according to the corresponding monthly self-monitoring report schedule. The report shall include, at a minimum, the information from the chronological log. Results from the daily effluent monitoring, required by 10.2.1. above, shall be verbally reported to the Los Angeles Water Board as the results become available and submitted as part of the monthly SMR.

### 10.3. Monitoring of Volumetric Data for Wastewater and Recycled Water

The State Water Board adopted “Water Quality Control Policy for Recycled Water” (Recycled Water Policy) on December 11, 2018 and the Recycled Water Policy became effective on April 8, 2019. The Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. As applicable, dischargers are additionally required to annually report recycled water use by volume and category of reuse. The State Water Board issued a Water Code Section 13267 and 13383 Order, Order WQ 2019-0037 EXEC, on July 24, 2019 to amend MRPs for all permits of NPDES, WDRs, WRRs, Master Recycling, and General WDRs. Annual reports are due by April 30 of each year, and the report must be submitted to GeoTracker. This Order implements the Recycled Water Policy by incorporating the volumetric monitoring reporting requirements in accordance with Section 3 of the [Recycled Water Policy](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf) ([https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2018/121118\\_7\\_final\\_amendment\\_oal.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf)). The State Water Board’s Order WQ 2019-0037 EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

10.3.1 **Influent:** The Discharger shall monitor monthly total volume of wastewater collected and treated by the wastewater treatment plant.

10.3.2 **Production:** The Discharger shall monitor monthly volume of wastewater treated, specifying level of treatment.

10.3.3. **Discharge:** The Discharger shall monitor monthly volume of treated wastewater discharged to specific water bodies as categorized in the Section 3.2.3 of the Recycled Water Policy. The level of treatment shall also be specified.

10.3.4. **Reuse:** The Discharger shall monitor monthly volume of recycled water distributed, and annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22 in each of the use categories specified in Section 3.2.4 of the Recycled Water Policy.

## **11. REPORTING REQUIREMENTS**

### **11.1. General Monitoring and Reporting Requirements**

- 11.1.1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 11.1.2. If there is no discharge during any reporting period, the report shall so state.
- 11.1.3. 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.
- 11.1.4. 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.

### **11.2. Los Angeles Harbor Toxics TMDL Monitoring and Reporting Requirements**

#### **11.2.1. Coordinated Compliance Monitoring and Reporting Plan (CCMRP)**

The Permittee shall follow the Coordinated Compliance Monitoring and Reporting Plan submitted to the Los Angeles Water Board and approved by the Executive Officer of the Los Angeles Water Board on June 6, 2014. The annual report under this monitoring program, including all results for all stations outlined in the CCMRP, has been submitted to the Los Angeles Water Board in April of each year since its submission of the first CCMRP annual report on February 22, 2016. The Permittee shall continue to submit the annual report under the CCMRP. In addition, the monitoring results for Harbor Toxics TMDL Sampling Locations ID # 8 and # 9 shall be submitted with the NPDES annual reports.

#### **11.2.2. Implementation Plan and Contaminated Sediment Management Plan (CSMP)**

The Permittee has developed and submitted an Implementation Plan and a Contaminated Sediment Management Plan to the Los Angeles Water Board, as required by the Harbor Toxics TMDL. The CSMP was divided into three geographical regions and each region is led by a single group. The lower Harbor is being led by the City of Los Angeles Harbor Department, the Dominguez Channel is being led by the County of Los Angeles, and the Los Angeles River Estuary is being led by the County of Los Angeles and the City of Long Beach. The City of Los Angeles Harbor Department submitted the CSMP and revised CSMP on March 24, 2014 and March 18, 2016, respectively. The CSMP has not yet been approved by the Los Angeles Water Board. The following table is a listing of the tasks required by the Harbor Toxics TMDL once the Implementation Plan and CSMP have been approved.

**Table E-10. Harbor Toxics TMDL Tasks**

Annual Implementation Report
Complete Phase I of TMDL Implementation Plan and Contaminated Sediment Management Plan
Submit updated Implementation Plan and Contaminated Sediment Management Plan
Report on status of implementation, scope, and schedule of remaining Phase II implementation actions to the Los Angeles Water Board
Complete Phase II of the TMDL Implementation plan and Sediment Management Plan
Complete Phase III of the TMDL Implementation Plan and Contaminated Sediment management Plan
Demonstrate attainment of LAs and WLAs using the means identified

**11.3. Self-Monitoring Reports (SMRs)**

11.3.1. 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) <[http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs](http://www.waterboards.ca.gov/water_issues/programs/ciwqs)>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

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

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

**Table E-11. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR

<b>Sampling Frequency</b>	<b>Monitoring Period Begins On</b>	<b>Monitoring Period</b>	<b>SMR Due Date</b>
<b>Weekly</b>	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday to Saturday	Submit with monthly SMR
<b>Monthly</b>	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month to last day of calendar month	By the 15 <sup>th</sup> day of the third month after the month of sampling
<b>Quarterly</b>	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 to March 31 April 1 to June 30 July 1 to September 30 October 1 to December 31	June 15 September 15 December 15 March 15
<b>Semiannually</b>	Closest of January 1 or July 1 following (or on) permit effective date	January 1 to March 31 July 1 to September 30	June 15 December 15
<b>Annually</b>	January 1 following (or on) permit effective date	January 1 to December 31	April 15
<b>Annually (Volumetric reporting)</b>	Permit effective date	January 1 to December 31	April 30

**11.3.4. 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 Section 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 ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.



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

11.3.5. **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).

11.3.6. **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.

11.3.7. 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.

#### 11.4. Discharge Monitoring Reports (DMRs)

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

[http://www.waterboards.ca.gov/water\\_issues/programs/discharge\\_monitoring](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

#### 11.5. Other Reports

##### 11.5.1. Pretreatment Report

The Permittee shall submit annual pretreatment reports to the Los Angeles Water Board, with copies to the State Water Board, and USEPA Region 9, describing the Permittee's pretreatment activities over the period. The annual reports shall contain, but not be limited to, the information required in the attached Pretreatment Reporting Requirements (Attachment I), or an approved revised version thereof. If the Permittee is not in compliance with any conditions or requirements of this Order, the Permittee shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

11.5.2. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – 6.3. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection 10.2. above.

##### 11.5.3. Annual Summary Report

By April 15 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water monitoring data. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit an annual report to the Los Angeles Water Board in accordance with the requirements described in subsection 11.3.7 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
- b. The Basin Plan or CTR criteria that was exceeded for each given pollutant;
- c. The concentration of the pollutant(s);
- d. The test method used to analyze the sample; and,
- e. The date and time of sample collection.

#### 11.5.4. Receiving Water Monitoring Report

An annual summary of the receiving water monitoring data collected during each sampling year (January-December) shall be prepared and submitted so that it is received by the Los Angeles Water Board by August 1<sup>st</sup> of the following year.

A detailed Receiving Water Monitoring Biennial Assessment Report of the data collected during the two previous calendar sampling years (January-December) shall be prepared and submitted so that it is received by the Los Angeles Water Board and USEPA Region IX by August 1<sup>st</sup> of every other year. This report shall include an annual data summary and shall also include an in-depth analysis of the biological and chemical data following recommendations in Design of 301(h) Monitoring Programs for Municipal Wastewater Discharges to Marine Water (EPA, November 1982; 430/982-010; pages 74-91) and the Model Monitoring Program Guidance Document (Schiff, K.C., J.S. Brown and S.B. Weisberg, 2001. Model Monitoring Program for Large Ocean Dischargers in Southern California. SCCWRP Tech. Rep #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). Data shall be tabulated, summarized, graphed where appropriate, analyzed, interpreted, and generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relationship of physical and chemical parameters shall be evaluated. See also Section 9 of this MRP. All receiving water monitoring data shall be submitted in accordance with the data submittal formats developed for the Southern California Bight Regional Monitoring Surveys.

The first assessment report shall be due August 1, 2022 and cover the sampling periods of January-December 2020 and January-December 2021. Subsequent reports shall be due August 1, 2024, and August 1, 2026, to cover sampling periods from January 2022 to December 2023, and January 2024 to December 2025, respectively.

11.5.5. The Discharger shall submit to the Los Angeles Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

11.5.6. The Los Angeles Water Board requires the Discharger to file with the Los Angeles Water Board, within 90 days after the effective date of this Order, a technical report on preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

- a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.
- b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

- c. Describe facilities and procedures needed for effective preventive and contingency plans.
  - d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.
- 11.5.7. The Los Angeles Water Board requires the City to submit a progress report of current and future planning for the Advanced Water Treatment Facility every year by December 1 to this Los Angeles Water Board. The progress report shall be received by this Los Angeles Water Board by December 1, 2021.

**11.5.8. Los Angeles Harbor Toxics Total Maximum Daily Load Reporting Requirements**

The City of Los Angeles shall continue to participate in the program of the *Harbor Toxics TMDL Coordinated Compliance Monitoring and Reporting*, as required under the Resolution No. R11-008, the *Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Great Los Angeles and Long Beach Harbor Water*, adopted by this Los Angeles Water Board on May 5, 2011. The Discharger shall upload annual Portable Document Format (PDF) reports to the California Integrated Water Quality System (CIWQS) summarizing the Harbor Toxics TMDL-based monitoring for Greater Los Angeles and Long Beach Harbor Waters. The annual PDF reports shall be submitted on April 15.

**11.5.9. 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 enclosed bays, estuaries and 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.

**11.5.10. Annual Volumetric Reporting of Wastewater and Recycled Water**

The Discharger shall electronically submit annual volumetric reports to the State Water Board by April 30 each year covering data collected during the previous calendar year using the [State Water Board's GeoTracker website](http://geotracker.waterboards.ca.gov) (geotracker.waterboards.ca.gov) under a site-specific global identification number. The annual volumetric report shall include information specified in section 10.3, above. A report upload confirmation from the GeoTracker shall be included in the annual report, which shall be submitted into CIWQS, by the report due date to demonstrate compliance with this reporting requirement.

## ATTACHMENT F – FACT SHEET

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## ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order, the Los Angeles Water 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	4B190106005
Discharger	City of Los Angeles
Name of Facility	Terminal Island Water Reclamation Plant
Facility Address	445 Ferry Street San Pedro, CA 90731-7416 Los Angeles County
Facility Contact, Title and Phone	Fernando Gonzalez, Plant Manager, (310) 732-4705
Authorized Person to Sign and Submit Reports	Enrique Zaldivar, (213) 485-2210
Mailing Address	Same as above
Billing Address	Same as above
Type of Facility	Publicly-Owned Treatment Works
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Producer
Facility Permitted Flow	30 million gallons per day (mgd)
Facility Design Flow	30 mgd
Watershed	Dominguez Channel – Los Angeles/Long Beach Watershed Management Area
Receiving Water	Los Angeles Outer Harbor
Receiving Water Type	Enclosed Bay

1.1. The City of Los Angeles (hereinafter City, Discharger, or Permittee) owns and operates a Publicly-Owned Treatment Works (POTW) comprised of the Terminal Island Water

Reclamation Plant (hereinafter TIWRP or Facility) and its associated wastewater collection system and outfalls.

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

- 1.2. The Facility discharges wastewater to the Los Angeles Outer Harbor (Harbor), a water of the United States. The Discharger was previously regulated by Order No. R4-2015-0119 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053856 adopted on June 11, 2015, as amended on October 8, 2015 by Order R4-2015-0119-AO1. The 2015 Order expired on July 31, 2020.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits. The Discharger filed a report of waste discharge (ROWD) and applied for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on January 13, 2020. Supplemental information was requested by this Los Angeles Water Board on February 27, 2020. The City submitted it on March 20, 2020. The application was deemed complete on April 3, 2020. A site visit was conducted on August 3, 2020, to observe operations and collect additional data to develop permit limitations and conditions. The terms and conditions of the current NPDES permit and its amendment have been automatically continued and remain in effect until new WDRs and NPDES permit are adopted. Attachments B1, B2, and C provide a map of the area around the Facility, a layout of the Site, and a flow schematic of the Facility, respectively. This NPDES permit regulates the discharge of tertiary treated effluent from the Facility and brine waste from the Advanced Water Purification Facility (AWPF), to the Harbor.

- 1.3. Applicable state law requires dischargers to file a petition with the State Water Resources Control Board (State Water Board), Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.
- 1.4. Phase Out. Discharge to the Harbor is also subject to the Water Quality Control Policy for the Enclosed Bays and Estuaries of California established by the State Water Board in 1974 (Resolution 74-43), which requires the discharges of Publicly-Owned Treatment Works (POTW) to enclosed bays and estuaries to cease at the earliest practicable date. The Harbor has been defined as an enclosed bay. On June 27, 1977, the Los Angeles Water Board issued Order No. 77-113 requiring the City to phase out the TIWRP discharge to the Harbor at the earliest practicable date or demonstrate that the discharge enhances the quality of the receiving water. The City could not demonstrate that the TIWRP effluent enhances the water quality in the Harbor; therefore, on November 25, 1985, the Los Angeles Water Board issued Order No. 85-77, requiring



the City to cease the TIWRP discharge to the Harbor at the earliest practicable date. Additionally, on October 31, 1994, the Los Angeles Water Board issued Resolution No. 94-009 to approve the proposal by the City to ultimately phase out the discharge of tertiary-treated effluent from the TIWRP into the Harbor at the earliest practicable date. The City's proposal entailed implementing a Water Recycling Program with the goal of doubling reuse of TIWRP effluent within six years after the startup of the initial reclamation phase and was expected to achieve reuse of 100 percent of TIWRP effluent by 2020.

The success of the zero discharge of tertiary-treated effluent from the Facility relies on the reuse of 100 percent of the tertiary-treated effluent. Based on the City of Los Angeles' December 19, 2019 letter responding to the Los Angeles Water Board's inquiry on the future water recycling plan at the Facility and the City of Los Angeles' schedules to fulfill this plan, the City of Los Angeles is working with end users to reuse all tertiary-treated effluent generated at the Facility. In addition, the City is constructing pipelines and pump stations to deliver the recycled water to users. These recycled water related structures are expected to be complete in 2024. The discharge phase-out through the water recycling program is described in Section 1.5 below. The Discharger is required to submit a discharge phase-out workplan, specified in section 6.3.2.c., to the Executive Officer of the Los Angeles Water Board for approval no later than three (3) months from the effective date of this Order. This discharge phase-out workplan shall provide schedules to cease discharge of tertiary-treated effluent from the Facility to the Los Angeles Outer Harbor (LA Harbor or Harbor) by 2024.

- 1.5. Water Recycling Program. To implement Los Angeles Water Board Resolution 94-009, the City has been constructing the Harbor Water Recycling Project in phases and currently treats approximately 12 mgd of TIWRP's tertiary-treated effluent by microfiltration and reverse osmosis (MF/RO) at the Advanced Water Purification Facility (AWPF) for various uses in the Los Angeles Harbor area. The use of recycled water is regulated under Order Numbers R4-2016-0334 and R4-2003-0025, for injection into the Dominguez Gap Seawater Intrusion Barrier and various non-potable uses throughout the Harbor area, respectively. The City is able to treat all of the dry-weather tertiary-treated effluent from the TIWRP and eliminate discharge to the Harbor with the exception of brine waste and the occasional discharge of tertiary-treated effluent if there are no other feasible alternatives as described in section 3.8. of this Order. The Los Angeles Water Board finds that these exceptions are currently necessary for the proper operation and maintenance of the AWPF, however, the City shall continue to work with the Los Angeles Department of Water and Power (LADWP) to develop and expand the recycled water portfolio for the treated wastewater from the TIWRP and the AWPF, with the ultimate goal of completely eliminating the discharge of tertiary-treated effluent to the Harbor.

In February 2019, the City completed Phase I of the Machado Lake Pipeline Project (MLP Project), which is a portion of the distribution system connecting the recycled water from TIWRP to these two recycled water users: Air Products and Valero Wilmington Refinery (Ultramar is a subsidiary of Valero). The City is currently constructing Phase II of the MLP Project, which includes the installation of

approximately 6,500 feet of 24-inch diameter pipeline to complete a loop in the Harbor recycled water distribution system.

Before the recycled water users can use the recycled water generated at the TIWRP, they must complete their on-site improvements required to deliver recycled water to their facilities. The recycled water service agreements currently being negotiated with Ultramar and Air Products will include City financing of their on-site improvements. Ultramar estimates that their on-site retrofits will be completed within 18 months after the service agreement is executed. Air Products plans to complete their on-site retrofits by the end of 2024.

Water Replenishment District of Southern California (WRD) has been a TIWRP recycled water user for the Barrier Project since 2003, when the original AWPf was constructed. The existing service connection to the Barrier Project has a capacity to receive 6 mgd. For WRD to receive the full 9.5 mgd service commitment provided in the December 2018 30-year service agreement, WRD agreed to provide construction services for two distribution system projects required to deliver 9.5 mgd to the Dominguez Gap Barrier. These two projects are the Second Gap Connection Pipeline Project (Second Connection Project) and the Harbor Recycled Water System Potable Backup Project (Backup Project). The Second Connection Project will construct approximately 3,000 feet of 24-inch diameter pipeline extension to provide a second connection to the Dominguez Gap Barrier. The Backup Project will provide potable water back-up capacity to the Harbor Recycled Water System. The agreement with WRD was executed in July 2020, and WRD expects construction of these projects to be completed by the end of 2024.

For the sustainable future, the City is reaching out to other recycled water producers, i.e. West Basin, and the Joint Water Pollution Control Plant to augment the available recycled water supply to match current and future demand.

1.6. A dilution credit of 61 was approved in 2004 and was applied to the effluent limitation calculations in both Orders R4-2008-0082 (amending R4-2005-0024) and R4-2010-0071. On July 15, 2014, the Los Angeles Water Board requested that the City update the original Dilution Study due to the fact that the ambient conditions in the Los Angeles Harbor are constantly changing and the expected reduced brine discharge volume after the expansion of the AWPf. The City submitted an updated Dilution Study final report on December 15, 2014, with a proposed dilution credit of 65. After consultation with State Water Board and Los Angeles Water Board's internal review using the Visual Plumes model, the Los Angeles Water Board granted the revised dilution credit of 65. This dilution credit of 65 was applied in Order No. R4-2015-0119 to calculate the final effluent limitations for multiple pollutants. The dilution credit of 65 was carried over in this permit for those same pollutants. Additionally, the City of Los Angeles submitted the following two special studies to request that the dilution credit of 65 be extended for turbidity and TCDD in this permit:

- Turbidity - The City of Los Angeles submitted the Los Angeles Harbor Natural Turbidity Special Study (Turbidity Special Study) on March 30, 2017. Order No. R4-2015-0119 includes turbidity effluent limitations that are based on the Title 22 Chapter 3 Water Recycling Criteria, which are not applicable for the effluent

discharged to the Outer Harbor. Turbidity effluent limitations are revised based on the Basin Plan water quality objective, dilution credit, and the Turbidity Special Study results. The maximum effluent turbidity data collected between January 2015 and June 2020 showed that daily turbidity values ranged from 0 to 6 NTU and averaged 2.1 NTU. The Los Angeles Harbor Natural Turbidity Special Study reported that the average receiving water turbidity around the Outfall is 1.3 NTU. As confirmation, assuming the highest turbidity of 6 NTU in the effluent and a dilution credit of 65, the resulting NTU would be 1.37 NTU outside the mixing zone. This concentration is a 5.4 % increase from the natural turbidity. Thus, if the effluent with the highest turbidity detected is discharged to the Outer Harbor, then it would not cause a 20% turbidity increase in the receiving water, given a dilution credit of 65. Thus, the dilution credit for turbidity is granted.

- TCDD - The City of Los Angeles submitted the Final Report of the TCDD Special Study (TCDD Study) on April 14, 2017. TCDD monitoring was conducted for one year, quarterly, from April 2016 to January 2017, and TCDD was analyzed using USEPA Method 1613B. The TCDD concentrations in the effluent were all ND with a method detection limit (MDL) of 10 pg/L. The average ambient TCDD concentration is 0.99 pg/L around the Outfall and 3.3 pg/L along the main channel. These detected values are estimated values, detected but not quantified. These results have a Reporting Limit (RL) of 10 pg/L. The RL is the lowest concentration at which an analyte can be detected in a sample such that the analyte's concentration can be reported with a reasonable degree of accuracy and precision. Since these reported background TCDD concentrations are below the RL, the Los Angeles Water Board concluded that the TCDD study results are inconclusive due to the high MDL and RL of the reported values. Thus, the dilution credit for TCDD is not considered at this point, but the Los Angeles Water Board will consider granting a dilution credit for TCDD as new information is available in the future.
- Cyanide - Total Cyanide Special Studies were conducted to determine dilution credits of 65 and 61. A 2014 special study was conducted for cyanide to determine if the dilution credit could be applied to the final effluent limitation for this constituent. The dilution credit of 65, based on a re-evaluation of the mixing zone specified in the 2014 special study, was granted in Order No. R4-2015-0119.

## 2. FACILITY DESCRIPTION

The City owns and operates the TIWRP, a tertiary wastewater treatment plant located at 445 Ferry Street, San Pedro, California, approximately 20 miles south of downtown Los Angeles. The Facility upgraded to a tertiary wastewater treatment plant in January 1997 and a new outfall to the Los Angeles Outer Harbor was installed in August 1996. A new effluent monitoring station, which captures the combined flows of the tertiary-treated effluent and the brine waste discharge from the TIWRP's AWPF to the Harbor via Discharge Point 001, was constructed and completed in July 2008.

The TIWRP processes wastewater at a flow rate between approximately 12 and 16 mgd, based on annual data reported in 2015 to 2019. The wastewater is collected and conveyed to the Facility by 264 miles of gravity sewer and 13 miles of force main, located at San Pedro, Wilmington, Terminal Island, and Harbor City areas. The wastewater is a mixture of

domestic, commercial, and industrial wastewater that is pre-treated pursuant to 40 CFR part 403. The TIWRP has a design capacity of 30 mgd and serves an estimated population of 142,000 people. The TIWRP has two bypass points: one for primary effluent and the other for secondary effluent. The primary effluent bypass point is operated by a valve and has never been used since it was put in service in 1977. The secondary bypass has been used several times since the filter facility was put into service in January 1997. The secondary effluent can be automatically overflowed to the filtered effluent discharge channel if the filter influent pumps are inoperable or overloaded. The most recent unfiltered secondary effluent discharge event into the Harbor was on August 26, 2004, when approximately 16,000 gallons of secondary effluent bypassed the filter process. There were no exceedances of effluent limits.

## 2.1. Description of Wastewater and Biosolids Treatment and Controls

Treatment at the TIWRP consists of wastewater processing, advanced wastewater treatment processing, and biosolids processing. The process flow diagram of the TIWRP is depicted in Attachment C.

2.1.2. The following are brief descriptions of the major unit processes, operations, and/or equipment:

- a. **Wastewater Processing** – consists of preliminary treatment (bar screening and aerated grit removal), primary treatment (primary sedimentation), secondary treatment (secondary clarification and activated sludge biological treatment), and tertiary treatment (effluent filtration). Under normal operating conditions, the discharge of the tertiary-treated effluent to the Harbor is not chlorinated.
  - i. Preliminary Treatment at Headworks – Removes coarse solids (by bar screening), sand and silt (by grit removal system) from wastewater.
  - ii. Primary Sedimentation – Removes solids from the wastewater by gravity. The heavier solids settle and are scraped out of the primary sedimentation basin. The lighter solids float to the top and are skimmed off. However, some solids remain in suspension.
  - iii. Activated Sludge Biological Treatment – Activated sludge consists of microorganisms that consume non-settleable and dissolved organic contaminants which form a settleable floc.
  - iv. Secondary Clarification – Removes biological floc from the wastewater which then mostly becomes part of the waste sludge. Chemicals such as aluminum sulfate (alum) may be added as part of the treatment process to encourage floc formation and enhance solids removal.
  - v. Tertiary Treatment – The filtration process is used to remove or reduce suspended or colloidal matter from a liquid stream by passing the water through a bed of graded granular material. Filters remove the solids that the secondary sedimentation process did not remove, thus, improving the disinfection efficiency and reliability.

- b. **Advanced Water Purification Facility (AWPF) Processing** – consists of a wet well, a flow equalization basin, microfiltration, sulfuric acid addition, reverse osmosis, pH stabilization, and UV/AOP disinfection.
- i. Microfiltration Feedwater Wet Well – Tertiary treated wastewater is diverted to this wet well. The effluent to the microfiltration station is pretreated with sodium hypochlorite and aqua ammonia to prevent biofouling and then fed into automatic self-cleaning 500-micron strainers.
  - ii. 2 Million Gallon Microfiltration Equalization Tank – This equalization tank is adjacent to the Microfiltration Feedwater Wet Well and used to adjust the water level of the Microfiltration Feedwater Wet Well.
  - iii. Microfiltration – The wastewater flow from the wet well is then split into two parallel trains, containing eighteen (18) parallel Memcor microfiltration units in total. The microfiltration units are periodically backwashed to clean the membranes and that backwash is sent back to TIWRP’s headworks for reprocessing.
  - iv. Reverse Osmosis (RO) – Prior to entering the RO process train, the pH of the treated water from the microfiltration units may need to be adjusted with sulfuric acid to protect the RO filters from calcium carbonate precipitation. The microfiltration filtrate is then fed into two separate RO process trains. Each RO process train has two stages in series and use thin-filmed membranes. Ammonia is added into RO permeate before entering the AOP. The ammonia is used to reduce bromate formation through AOP.
  - v. UV/AOP Disinfection – The AOP includes two (2) low-pressure ultraviolet (UV) irradiation trains and hypochlorous acid addition. The AOP is used to disinfect RO permeate and destroy some constituents of emerging concern (CECs) that pass through RO membranes due to their low molecular weight and low ionic charge. The treated water from the RO units is additionally disinfected prior to being injected into the Dominguez Gap Seawater Intrusion Barrier or any other permitted reuse.
  - vi. AWPF Pumping Station – The AOP effluent is stabilized and then distributed from the AWPF Pumping Station. Sodium hydroxide and calcium chloride are added in the Stabilization Tank to increase the pH of the AOP effluent to protect the LADPW’s distribution and injection system. In addition, sodium hypochlorite and aqua ammonia are added to control microorganism growth. Six product water pumps in the Product Water Tank transfer the finished product water into the distribution system.
- c. **Biosolids Processing** –
- i. Land Application – Sludge may be thickened, anaerobically digested, dewatered, and hauled to either the City’s Green Acres Farm located at Kern County for land application or to a contracted site in Arizona for composting and land application at various locations in Arizona and California. However, the land application option is currently unavailable.

- ii. Deep Well Injection - Project - In 2008, the City and GeoEnvironment Technologies started the experimental Terminal Island Renewable Energy (TIRE) project at the Terminal Island Water Reclamation Plant. TIRE is an innovative technology to convert biosolids into energy by deep well injection and geothermal biodegradation. The US EPA permitted the project as an experimental technology. TIRE's permit allows for a maximum injection capacity of 400 dry tons per day of biosolids. Two injection wells and two monitoring wells have been drilled to a depth of 5,500 feet. The biosolids are injected into soft, high porosity, formation sands, using technology optimized for slurry injection. Currently, the City is injecting on a daily basis approximately 248 tons of dry and dewatered biosolids at the TIRE injection facility:
  - All of the Facility's wet biosolids (up to 274,200 gallons per day containing approximately 73 tons of dry biosolids); and
  - 175 tons of dewatered biosolids trucked from the Hyperion Wastewater Treatment Plant – Seven (7) truck loads per day, each truck delivering approximately 25 tons of dewatered biosolids.

## **2.2. Discharge Points and Receiving Waters**

- 2.2.1. Pursuant to Provision 4.c. of Resolution No. 94-009, and to accommodate the Port of Los Angeles' expansion project (2020 Plan) which deepens and widens the main channels of the Los Angeles Harbor, the TIWRP effluent discharge location was upgraded to discharge to the Outer Harbor via an 800-foot outfall with a multi-port diffuser consisting of 100, 4-inch ports to improve initial dilution of the discharge.
- 2.2.2. The Los Angeles Outer Harbor is the receiving water for the TIWRP discharge and is part of the Los Angeles/Long Beach Watershed Management Area (WMA) and Dominguez Channel Watershed. The Los Angeles Harbor has been defined as an enclosed bay listed in Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).
- 2.2.3. The Los Angeles Harbor is located in the southern portion of the Los Angeles Basin. Along the northern portion of San Pedro Bay is a natural embayment formed by a westerly extension of the coastline. It contains the Los Angeles Harbor, with the Palos Verdes Hills as the dominant onshore feature. Historically, the area consisted of marshes and mudflats with a large marshy area, Dominguez Slough, to the north, and flow from the Los Angeles River entering where Dominguez Channel now drains.
- 2.2.4. Several locations in the Harbor area, including the Los Angeles and Long Beach Outer Harbor, have been listed as impaired or sites of concern under the Bay Protection and Toxic Cleanup Program (BPTCP) due to benthic community effects, DDT, PCBs (sediments and tissue), PAHs (sediment), sediment toxicity, and metals (zinc in tissue samples; zinc, lead, and copper in sediments). The two areas within the Harbor that are considered to be toxic hot spots under the BPTCP are the Dominguez Channel/Consolidated Slip and the Cabrillo Pier area. More detailed

information on pollutants in the receiving water of the Los Angeles Harbor is available in Section 3.4. of this Fact Sheet.

### 2.3. Summary of Historic Requirements and SMR Data

Table F-2 presents the combined brine and effluent limitations in Order R4-2015-0119 for discharge from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data (where above detection limits) from August 1, 2015 and June 30, 2020.

**Table F-2. Historic Effluent Limitations and Monitoring Data at EFF-001**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
BOD <sub>5</sub> 20°C	mg/L	15	30	40	12	15	23
Total Suspended Solids (TSS)	mg/L	15	30	40	5	7	11
Oil and Grease	mg/L	10	---	15	1.2	---	7
Settleable Solids	mL/L	0.1	---	0.3	<0.1	---	0.2
Total Residual Chlorine	mg/L	---	---	0.1	---	---	0.61
Ammonia Nitrogen	mg/L	28	---	85	14.7	---	14.7
MBAS	mg/L	33	---	---	1.19	---	1.19
Temperature	°F	---	---	86	87	---	87
Antimony	µg/L	---	---	---	1.5	---	1.5
Arsenic	µg/L	---	---	---	12.3	---	12.3
Beryllium	µg/L	---	---	---	0.14	---	0.14
Cadmium	µg/L	---	---	---	0.09	---	0.09
Chromium III	µg/L	---	---	---	9.48	---	9.48
Chromium VI	mg/L	---	---	---	0.28	---	0.28
Copper	µg/L	102	---	230	56.3	---	56.3
Lead	µg/L	---	---	---	0.37	---	0.37
Mercury	µg/L	---	---	---	0.013	---	0.013
Nickel	µg/L	---	---	---	15.7	---	15.7
Selenium	µg/L	---	---	---	14.8	---	14.8
Silver	µg/L	---	---	---	0.275	---	0.275
Thallium	µg/L	---	---	---	0.74	---	0.74
Zinc	µg/L	---	---	---	32.6	---	32.6
Cyanide	µg/L	---	---	---	6	---	6
2,3,7,8TCDD (Dioxin)	pg/L	0.014	---	0.027	<110	---	<110
Benzene	µg/L	---	---	---	0.2	---	0.2
Bromoform	µg/L	---	---	---	1.64	---	1.64
Chlorodibromomethane	µg/L	---	---	---	4.39	---	4.39
2-chloroethylvinyl ether	µg/L	---	---	---	1.6	---	1.6
Chloroform	µg/L	---	---	---	1.31	---	1.31
Bromodichloromethane	µg/L	---	---	---	2.08	---	2.08

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Methylene Chloride	µg/L	---	---	---	0.39	---	0.39
Toluene	µg/L	---	---	---	0.12	---	0.12
Phenol	µg/L	---	---	---	0.9	---	0.9
2,4,6-trichlorophenol	µg/L	---	---	---	1.98	---	1.98
Benzo(a)Pyrene	µg/L	---	---	---	0.03	---	0.03
Bis(2-Chloroisopropyl) Ether	µg/L	---	---	---	0.34	---	0.34
Bis(2-ethylhexyl) Phthalate	µg/L	---	---	---	0.63	---	0.63
Butylbenzyl Phthalate	µg/L	---	---	---	0.27	---	0.27
Dibenzo(a,h) Anthracene	µg/L	---	---	---	0.11	---	0.11
Diethyl Phthalate	µg/L	---	---	---	1.53	---	1.53
Di-n-butyl Phthalate	µg/L	---	---	---	0.58	---	0.58
Indeno(1,2,3-cd) Pyrene	µg/L	---	---	---	0.06	---	0.06
Phenanthrene	µg/L	---	---	---	0.034	---	0.034
Pyrene	µg/L	---	---	---	0.037	---	0.037
4,4'-DDT	µg/L	---	---	---	0.011	---	0.011
4,4'-DDD	µg/L	---	---	---	0.00402	---	0.00402

#### 2.4. Compliance Summary

The following table (Table F-3) lists the Terminal Island Water Reclamation Plant's violations of subdivisions (h) and (i) of California Water Code section 13385, from August 1, 2015 to June 30, 2020. Violation ID No.1059725 was addressed through Settlement Offer No. R4-2020-0036 issued by the Los Angeles Water Board on June 17, 2020. For additional information about the alleged violations listed in the table, please refer to the [SWRCB Public Reports](http://www.swrcb.ca.gov/publicreports) webpage ([http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/publicreports.shtml](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml)) ; choose the "MMP Report" link located under the "Enforcement Reports" category. Once in the Public Reports search page, enter the search criteria that correspond to the Terminal Island Water Reclamation Plant to access the list of violations.

**Table F-3. List of Violations**

Violation ID	Occurrence Date	Violation Description
998986	08/01/2015	Deficient Monitoring
1003153	11/21/2015	Deficient Monitoring
1012752	06/21/2016	Turbidity Daily Average (Mean) limit is 2 NTU and reported value was 2.5 NTU at EFF-001



Violation ID	Occurrence Date	Violation Description
1012753	06/21/2016	Turbidity limit is 5 NTU and reported value was 6 NTU at EFF-001
1022077	12/07/2016	Deficient Monitoring
1046173	07/25/2017	Deficient Monitoring
1029281	07/28/2017	Deficient Monitoring
1059725	03/21/2019	Chlorine limit is 0.1 mg/L and reported value was 0.61 mg/L
1062072	05/21/2019	Chronic Toxicity Monthly Median limit is Pass/Fail (Pass = 0, Fail = 1) and reported value was 1 at EFF-001
1070666	11/03/2019	Deficient Monitoring
1077959	05/28/2020	Deficient Monitoring

### 2.5. Planned Changes

The Sludge Blending Tank blends primary sludge and thickened waste activated sludge before it goes to the anaerobic digesters. The Sludge Blending Tank is currently in a temporary configuration due to a failure of the center mixing shaft’s drive gearbox. The Discharger is temporarily using a pump for mixing in this tank until the gearbox is repaired or replaced. There are currently no planned changes to the treatment system.

## 3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

### 3.1. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 1 subject to the WDRs in this Order.

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

Under CWC 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 the Los Angeles Outer Harbor are as follows:

**Table F-4. Basin Plan Beneficial Uses – Surface Waters**

<b>Hydrologic Unit Code (HUC)</b>	<b>Receiving Water Name</b>	<b>Beneficial Use(s)</b>
180701040602 (formerly Calwater Hydro Unit 405.12)	Outer Harbor	<b>Existing:</b> Navigation (NAV); water contact recreation (REC-1) and non- contact recreation (REC-2); commercial (COMM); marine habitat (MAR); threatened or endangered species (RARE; See note a) <b>Potential:</b> shellfish harvesting (SHELL)
180701040602 (formerly Calwater Hydro Unit 405.12)	Marinas	<b>Existing:</b> Industry water supply (IND); NAV; REC-1; REC-2; COMM; MAR; RARE <b>Potential:</b> SHELL
180701040602 (formerly Calwater Hydro Unit 405.12)	Public Beach Area	<b>Existing:</b> NAV; REC-1; REC-2; COMM; MAR; wildlife habitat (WILD); RARE; SHELL <b>Potential:</b> Spawning, reproduction, and/or early development (SPWN)
180701040602 (formerly Calwater Hydro Unit 405.12)	All Other Inner Areas	<b>Existing:</b> IND; NAV, REC-2, COMM; MAR; RARE (See note a) <b>Potential:</b> REC-1; SHELL
180701040302 (formerly Calwater Hydro Unit 405.12)	Dominguez Channel Estuary (See notes b and c) (Hydro Unit 405.12)	<b>Existing:</b> REC-1; REC-2; COMM; estuary habitat (EST); MAR; WILD; RARE; migration of aquatic organisms (MIGR) (See note d); SPWN (See note d) <b>Potential:</b> NAV
180701040404 (formerly Calwater Hydro Unit 405.12)	Los Angeles River Estuary (See notes b and c) (Hydro Unit 405.12)	<b>Existing:</b> IND; NAV; REC-1; REC-2; COMM; EST; MAR; WILD; RARE (See note a); MIGR (See note d); SPWN (See note d); wetland habitat (WET) <b>Potential:</b> SHELL

**Footnotes for Table F-4**

- a. One or more rare species utilizes all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.
- b. The Dominguez Channel Estuary and Los Angeles River Estuary are also listed in Inland Surface Water Table (2-1) and in Coastal Feature Table (2-3) of the Basin Plan.
- c. These areas are engineered channels. All references to Tidal Prisms in Los Angeles Water Board documents are functionally equivalent to estuaries.

- d. Aquatic organisms utilize all bays, estuaries, lagoons and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas, which are heavily influenced by freshwater inputs.

#### **End of Footnotes for Table F-4**

- 3.3.2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA 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, USEPA 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.
- 3.3.3. **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 USEPA 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 USEPA 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.
- 3.3.4. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.
- 3.3.5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR section 131.21, 65 Federal Register 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
- 3.3.6. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on BOD, TSS, and percent removal of BOD and TSS. Restrictions on BOD and TSS 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. In addition, this Order contains effluent limitations more stringent than

the minimum, federal technology-based requirements that are carried over from the previous permit.

WQBELs have been scientifically derived to implement water quality objectives (WQOs) that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

**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.

**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.

**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. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

**3.3.10. Water Rights.** Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change from the State Water Board. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211.

3.3.11. **Water Recycling.** In accordance with statewide policies concerning water reclamation,<sup>1</sup> the Los Angeles Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of stormwater and dry-weather urban runoff. However, those recycling efforts shall consider the necessity of a water rights 1211 application, which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water body. Recycled water reports shall be included in the annual report submittal as described in the MRP.

The State Water Board adopted “Water Quality Control Policy for Recycled Water” (Recycled Water Policy) on February 3, 2009 and amended it most recently on December 11, 2018. The most recent amendments became effective on April 8, 2019. The Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. As applicable, dischargers are additionally required to annually report recycled water use by volume and category of reuse. The State Water Board issued a Water Code Section 13267 and 13383 Order, Order WQ 2019-0037 EXEC, on July 24, 2019 to amend MRPs for all NPDES, WDRs, WRRs, Master Recycling, and General WDRs. Annual reports are due by April 30 of each year, and the report must be submitted to GeoTracker. This Order implements the Recycled Water Policy by incorporating the volumetric monitoring reporting requirements in accordance with Section 3 of the [Recycled Water Policy](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf)

([https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2018/121118\\_7\\_final\\_amendment\\_oal.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf) ). The State Water Board’s Order WQ 2019-0037 EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

3.3.12. **Monitoring and Reporting.** 40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Los Angeles Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.

3.3.13. **Sewage Sludge and Biosolids.** Section 405 of the CWA and implementing regulations at 40 CFR part 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The state has not been delegated the authority by USEPA to implement this program. Therefore, this Order does not prescribe requirements for sewage sludge/biosolids (40 CFR part 503), but merely provides those requirements for informational purposes only in Attachment H. USEPA is the implementing agency, not the Los Angeles Water Board.

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<sup>1</sup> See, e.g., Water Code sections 13000 and 13550-13557, State Water Board Resolution No. 77-1 (Policy with Respect to Water Reclamation in California), and State Water Board Resolution Numbers 2009-0011, 2013-0003, and 2018-0057 (Recycled Water Policy).

**3.3.14. 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-Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions” (Mercury Provisions) through Resolution No. 2017-0027, which was approved by Office of Administrative Law (OAL) on June 28, 2017 and became effective upon USEPA 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 Provisions included implementation provisions for individual non-stormwater NPDES permits for municipal and industrial dischargers; stormwater discharges including MS4 discharges and discharges regulated by the Industrial General Permit (NPDES No. CAS000001); mine site remediation; nonpoint source discharges; dredging activities; and wetland projects. The Mercury Provisions contain provisions that apply to POTWs and individual industrial discharges. The Mercury Provisions converted the fish tissue-based water quality objectives to water column values, denoted as “C”. The implementation section of the Mercury Provisions requires the application of section 1.3 of the SIP with modifications to determine whether a discharge has reasonable potential to cause or contribute to an exceedance of the water column concentration for mercury and the development of effluent limitations for mercury based on the water quality objective applicable to the receiving water in accordance with Chapter IV.D.2.b. (See section IV.C.3. for SIP procedures). Effluent limitations for mercury have not been established in this Order because the data indicated that there is no reasonable potential to support including an effluent limitation.

**3.3.15. Bacteria Provisions.** The State Water Resources Control Board’s “Part 3 of the Water Quality Control Plan for the Inland Surface Waters, Enclosed Bays, and Estuaries of California-Bacteria Provisions and a Water Quality Standards Variance Policy (Bacteria Provisions) setting state-wide bacteria water quality objectives to protect recreational users from the effects of pathogens. The Bacteria Provisions were approved by OAL on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The Bacteria Provisions establish *Enterococci* as the sole indicator of pathogens for REC-I beneficial uses in all inland surface waters, enclosed bays and estuaries where the salinity is greater than 1 ppt more than 5 percent of the time, such as Los Angeles Harbor. These *Enterococci* water quality objectives supersede any numeric water quality objectives for bacteria for the protection of the REC-1 beneficial use in Los Angeles Water Board Basin Plans prior to the effective date of the Bacteria Provisions, except in certain circumstances, such as where there are site-specific numeric water quality objectives for bacteria. This Order implements the Bacteria Provisions by establishing receiving water limitations using *Enterococci* as the sole indicator of bacteria for protection of REC-I beneficial uses in the receiving water. Since the Order No. R4-2015-0119-A01 did not have effluent limits or monitoring requirements for *Enterococci* in the effluent, the Facility does not have data to establish the effluent limitations in consideration of dilution credits, therefore, the effluent monitoring is required in this Order. In addition, the Bacteria Provisions do not supersede any objectives for the Shellfish

Harvesting (SHELL) beneficial use. The Harbor has the potential SHELL beneficial use, thus, the bacteria receiving water limitation for SHELL beneficial use is retained.

On February 13, 2020, the Los Angeles Water Board adopted Resolution No. R20-001, incorporating the Bacteria Provisions into the Basin Plan. This Basin Plan amendment is pending approval by OAL. It will become effective after approval by USEPA.

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

The State Water Board proposed the California 2014 and 2016 Integrated Report based on a compilation of the Regional Water Boards' Integrated Reports. These Integrated Reports contain both the Clean Water Act (CWA) section 305(b) water quality assessment and section 303(d) list of impaired waters. In developing the Integrated Reports, the Water Boards solicit data, information and comments from the public and other interested persons. On October 03, 2017 the State Water Board adopted the CWA Section 303(d) List portion of the State's 2014 and 2016 Integrated Report (State Water Board Resolution No. 2017-0059). On April 06, 2018, the USEPA approved California's 2014 and 2016 Integrated Report. The [CWA section 303\(d\) List](https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtm) can be found at the following link:

[https://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2014\\_2016.shtm](https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtm)

The Los Angeles Harbor and nearby locations are on the 303(d) list. The following pollutants/ stressors, from point and non-point sources, were identified as impacting the receiving waters:

#### 3.4.1. Los Angeles Harbor – Cabrillo Marina, Calwater #40512000, USGS HUC #18070104

Pollutants: PCBs, DDT, and benzo(a)pyrene.

#### 3.4.2. Los Angeles Harbor – Consolidated Slip, Calwater #40512000, USGS HUC #18070104

Pollutants: Copper (sediment), chromium, toxaphene (tissue), zinc (sediment), mercury (sediment), dieldrin, cadmium (sediment), chlordane (tissue and sediment), phenanthrene, pyrene, 2-methylnaphthalene, benzo(a)anthracene, benthic community effects, chrysene (C1-C4), DDT (tissue & sediment), lead (sediment), toxicity, benzo(a)pyrene, and PCBs (tissue & sediment)

#### 3.4.3. Los Angeles Harbor – Fish Harbor, Calwater #40518000, USGS HUC #1807010

Pollutants: Zinc, pyrene, lead, phenanthrene, benzo(a)pyrene, chrysene (C1-C4), chlordane, mercury, toxicity, dibenzo(a,h)anthracene, benzo(a)anthracene, copper, PAHs, DDT, and PCBs.

#### 3.4.4. Los Angeles Harbor – Inner Cabrillo Beach Area, Calwater #40512000, USGS HUC #18070104

Pollutants: DDT, PCBs, and indicator bacteria.

3.4.5. Los Angeles River Estuary – Queensway Bay, Calwater #40512000, USGS HUC #18070104

Pollutants: chlordane, trash, DDT (sediment), PCBs (sediment), and toxicity.

3.4.6. Los Angeles/Long Beach Outer Harbor – inside breakwater, Calwater #40512000, USGS HUC #18070104

Pollutants: PCBs, toxicity, and DDT.

3.4.7. Los Angeles/Long Beach Inner Harbor, Calwater #40518000, USGS HUC #18070104

Pollutants: DDT, copper, zinc, PCBs, benthic community effects, toxicity, chrysene (C1-C4), and benzo(a)pyrene

3.4.8. Dominguez Channel Estuary – Unlined Portion below Vermont Ave, Calwater #40512000, USGS HUC #18070104

Pollutants: benzo(a)pyrene, PCBs, pyrene, phenanthrene, copper, chrysene (C1-C4), benzo(a)anthracene, DDT (tissue & sediment), lead, dieldrin (tissue), chlordane (tissue), benthic community effects, toxicity, and Indicator bacteria

### 3.5. Other Plans, Policies 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.

**3.5.2. Title 22 of the California Code of Regulations (CCR Title 22).** The State Water Resources Control Board, Division of Drinking Water, established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge (GWR) beneficial use when that receiving groundwater is designated as MUN. The LA Harbor does not have MUN or GWR beneficial uses; therefore, Title 22 MCLs are not applied as limitations in this Order.

**3.5.3. Secondary Treatment Regulations.** 40 CFR part 133 establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.

**3.5.4. Stormwater.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR Section 122.26 that established requirements for stormwater discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, NPDES Permit No. CAS000001, *General Permit for Discharges of Stormwater Associated with Industrial Activities*. This General permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate stormwater discharges associated with industrial activity. This General Permit was further amended by the Order 2014-0057-DWQ, which was adopted by the State Water Board on April 1, 2014 and became effective on July 1, 2015.

General NPDES permit No. CAS000001 is applicable to stormwater discharges from the TIWRP's premises. The City collects stormwater runoff at the TIWRP and directs it to a lift station where it is pumped to the facility headworks for treatment. On July 22, 1993, the City filed a Notice of Intent to comply with the requirements of the general permit. The City developed and currently implements a Stormwater Pollution Prevention Plan (SWPPP), to comply with the State Water Board's Order No. 2014-0057-DWQ.

**3.5.5. Sanitary Sewer Overflows (SSOs).** The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code (USC) sections 1311 and 1342). The Discharger must comply with State Water Board Water Quality Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (SSS WDRs) as amended by State Water Board Order No. WQ 2013-0058-exec and any subsequent order updating these requirements. These statewide WDRs require public agencies that own or operate sanitary sewer systems with greater than one mile of sewer lines to enroll for coverage, comply with requirements to develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSS WDRs, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any noncompliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order in sections 6.3.3.b. (Spill Cleanup Contingency Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Los Angeles Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs are considered the minimum thresholds (see Finding 11 of State Water Board Order No. 2006-0003- DWQ). To encourage efficiency, the Los Angeles Water Board will accept the documentation prepared by the permittees under the SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative. The requirements of this permit are more stringent than the SSS WDRs because in addition to the SSS WDRs requirements, this NPDES permit requires water quality monitoring of the receiving water when the spill reaches the surface water.

**3.5.6. Watershed Management.** The Los Angeles Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region. Information about watersheds in the region can be obtained at the Los Angeles Water Board's website at [http://www.waterboards.ca.gov/losangeles/water\\_issues/programs/regional\\_program/watershed/index.shtml](http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml). The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available.

**3.5.7. Relevant TMDLs.** Section 303(d) of the CWA requires states to identify water bodies that do not meet water quality standards and then to establish TMDLs for each water body for each pollutant of concern. TMDLs identify the maximum amount of pollutants that can be discharged to water bodies without causing violations of water quality standards.

**Los Angeles Harbor Toxics TMDL.** On May 05, 2011, the Los Angeles Water Board adopted Resolution R11-008, *Amendment to the Water Quality Control Plan – Los Angeles Region to Incorporate the Total Maximum Daily Load for Toxic Pollutants in Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters*. This Resolution was approved by the State Water Board on February 07, 2012, and the USEPA on March 23, 2012. This TMDL became effective on March 23, 2012. This Order includes mass-based effluent limitations for pollutants assigned WLAs by the Los Angeles Harbor Toxics TMDL, and the mass-based effluent limitations will become effective on March 23, 2032.

**3.5.8. Sediment Quality.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* on September 16, 2008, and it became effective on August 25, 2009 (Enclosed Bays and Estuaries Plan). The State Water Board amended the sediment quality provisions of the Enclosed Bays and Estuaries Plan through Resolution No. 2018-0028; these amendments became effective upon approval by U.S. EPA on March 11, 2019. The Enclosed Bays and Estuaries Plan supersedes other narrative sediment quality objectives and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries. Requirements of this Order implement sediment quality objectives of the Enclosed Bays and Estuaries Plan.

#### **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.

The variety of potential pollutants found in the Facility discharges presents a potential for aggregate toxic effects to occur. Whole effluent toxicity (WET) is an indicator of the combined effect of pollutants contained in the discharge. Chronic toxicity is a more stringent requirement than acute toxicity. Therefore, chronic toxicity is considered a pollutant of concern for protection and evaluation of narrative Basin Plan objectives for toxicity.

##### **4.1. Discharge Prohibitions.**

Effluent and receiving water limitations in this Order are based on the CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best

practicable waste treatment technology. This order authorizes the discharge of tertiary-treated wastewater from Discharge Point 001 only. It does not authorize any other type of discharges.

**4.2. Technology-based Effluent Limitations (TBELs)**

**4.2.1. Scope and Authority.**

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level, referred to as “secondary treatment,” which all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of BOD<sub>5</sub>20°C, and TSS.

**4.2.2. Applicable TBELs**

This Facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD<sub>5</sub>20°C, and TSS. The principal design parameter for wastewater treatment plants is the daily BOD and TSS loading rates and the corresponding removal rate of the system. In applying 40 CFR Part 133 for weekly and monthly average BOD and TSS limitations, the application of tertiary treatment processes results in the ability to achieve lower levels of BOD and TSS than the secondary standards. This Facility is also subject to TBELs contained in similar NPDES permits, for similar facilities, based on the treatment level available by tertiary treated wastewater treatment systems. In addition to the average weekly and average monthly effluent limitations, a daily maximum effluent limitation for BOD and TSS is included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. All technology-based effluent limitations have been carried over from the existing order (Order R4-2015-0119-A01), to prevent backsliding. Further, mass-based effluent limitations are based on a design flow rate of 30 mgd. The following Table summarizes the TBELs applicable to the Facility:

**Table F-5. Summary of TBELs**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Note
BOD <sub>5</sub> 20°C	mg/L	15	30	40	---
BOD <sub>5</sub> 20°C	lbs/day	3,800	7,500	10,000	a
TSS	mg/L	15	30	40	---
TSS	lbs/day	3,800	7,500	10,000	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Note
Removal Efficiency for BOD and TSS	%	≥85	---	---	---

**Footnote to Table F-5**

- a. The mass emission rates are based on the plant design flow rate of 30 mgd and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

**End of Footnote to Table F-5**

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

**BOD<sub>5</sub>20°C and TSS**

BOD<sub>5</sub>20°C is a measure of the quantity of the organic matter in the water and, therefore, the water’s potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, in fish kills.

40 CFR part 133 describes the minimum level of effluent quality attainable by secondary treatment, for BOD and TSS, as:

- The 30-day average shall not exceed 30 mg/L, and
- The 7-day average shall not exceed 45 mg/L.

The TIWRP provides tertiary treatment so the BOD and TSS limits in the permit are more stringent than secondary treatment requirements and are based on Best Professional Judgment (BPJ). The Facility achieves solids removals that are better than secondary-treated wastewater by adding a polymer (Alum) to enhance precipitation of solids, and by filtering the effluent.

In addition to having mass-based and concentration-based effluent limitations for BOD and TSS, the TIWRP also has a percent removal requirement for these two constituents. In accordance with 40 CFR sections 133.102(a)(3) and 133.102(b)(3), the 30-day average percent removal shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the Facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

### 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. This Order contains requirements more stringent than technology-based requirements, including secondary-treatment requirements, that are necessary to meet applicable water quality standards. The rationale for these requirements, is discussed beginning in section 4.3.2. of this Fact Sheet.

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

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

The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of the Los Angeles Harbor affected by the discharge have been described previously in this Fact Sheet. The Basin Plan also specifies narrative and numeric WQOs applicable to surface water as described below:

##### a. pH

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. In accordance with 40 CFR § 133.102(c), the effluent values for pH shall be maintained within the limits of 6.0 to 9.0 unless the POTW demonstrates that (1) inorganic chemicals are not added to the waste stream as part of the treatment process; and (2) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0. The effluent limitation for pH in this permit requiring that the wastes discharged shall at all times be within the

range of 6.5 to 8.5 is taken from the Basin Plan (page 3-15) which reads “the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.”

**b. Settleable Solids**

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin Plan (page 3-16) narrative, “Waters shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses.” The numeric limits are empirically based on results obtained from the settleable solids 1-hour test, using an Imhoff cone.

It is impracticable to use a 7-day average limitation, because short-term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit (Order R4-2015-0119) and the TIWRP has been able to meet both limits.

**c. Oil and Grease**

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, and causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, “Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.”

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation, because spikes that occur under a 7-day average scheme could cause a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. Both limits were included in the previous permit (Order No. R4-2015-0119) and the TIWRP has been able to meet both limits. The limits are contained herein.

**d. Residual Chlorine**

Disinfection of wastewaters with chlorine produces a residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan water quality objective, “Chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses.” It is impracticable to use a 7-day average or a 30-day average

limitation, because it is not as protective of beneficial uses as a daily maximum limitation is. Chlorine is very toxic to aquatic life and short-term exposures of chlorine may cause fish kills. Based on the foregoing, the final effluent limitation for total residual chlorine is a daily maximum of 0.1 mg/L.

**f. Methylene Blue Activated Substances (MBAS)**

The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of surface waters.

Given the nature of the facility (a POTW), which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective and the narrative WQO for the prohibition of floating material such as foams and scums. In addition, surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use, based on the Basin Plan. Therefore, the effluent limitation is retained.

The MBAS limit protects the recreational, commercial and sport fishing, and marine habitat, and threatened or endangered species beneficial uses of the surface receiving water downstream of the discharge against foam and implements the Basin Plan WQO for floating material. Volume 44, No. 179 of the Federal Register (on page 53467) explains that foaming is a characteristic of water which has been contaminated by the presence of detergents and similar substances, and the 0.5 mg/L limit for foaming agents is based on the fact that at higher concentrations, the water may exhibit undesirable taste and foaming properties. The effluent limitations for MBAS are established based on dilution credits determined in the 2014 TIWRP Dilution Study Update approved by the Los Angeles Water Board specified in section 1.6 of Fact Sheet.

Cobalt thiocyanate active substances (CTAS) are monitored in the same way as MBAS. The presence or absence of CTAS during sampling assists permit writers and the Discharger in diagnosing the source of floating materials, such as foam or scum, which are prohibited by the Basin Plan when they cause nuisance or adversely affect beneficial uses. There is no limitation or compliance requirement for CTAS because it has no established water quality objective.

**g. Total Ammonia**

Ammonia is a pollutant routinely found in the wastewater effluent of POTWs, in landfill-leachate, as well as in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia ( $\text{NH}_3$ ) and the ammonium ion ( $\text{NH}_4^+$ ). They are both toxic, but the neutral, un-ionized ammonia species ( $\text{NH}_3$ ) is much more toxic because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional



impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. Recycled water produced by the Permittee used for groundwater recharge is regulated under separate Water Recycling Requirements. Ammonia also combines with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

A reasonable potential analysis (RPA) was conducted for total ammonia, using the Discharger's effluent data from August 2015 through June 20, 2020. The RPA compared the effluent data with the Basin Plan WQOs and determined there is a reasonable potential to cause or contribute to an exceedance of the Basin Plan WQO for ammonia. Consistent with 40 CFR section 122.44(d), this Order contains numeric effluent limitations for total ammonia. The effluent limits were derived based on the salinity, temperature, pH, and ammonia of the receiving waters. The CTR specifies that salt water criteria apply at locations where the salinity is 10 ppt or more 95% or more of the time. The average values of quarterly data collected between August 2015 and February 2020 at the harbor monitoring stations HW23, HW24, and HW44 for salinity, temperature, and pH were 33.29 ppt, 290.03 °K, and 8.04, respectively. The maximum concentration of ammonia detected at HW24 in the first quarter of 2017 was used to calculate ammonia effluent limitations, based on SIP section 1.4.3.1 Ambient Background Concentrations as an Observed Maximum. The final ammonia effluent limitations are calculated using the salt water criteria as follows:

### **Calculation for Ammonia**

#### **Step 1: Identify applicable water quality objectives for ammonia for the receiving water immediately downstream of the discharge.**

Average Salinity: 33.29 ppt

Water Quality Objectives for waters greater than or equal to 10 ppt 95% or more of the time

1-hour Average Concentration = 0.233 mg unionized NH<sub>3</sub>/L

4-day Average Concentration = 0.035 mg unionized NH<sub>3</sub>/L

#### **Step 2a: For each water quality objective, calculate the effluent concentration allowance (ECA) using the following steady-state mass balance model:**

$$ECA = WQO + D (WQO - B) \text{ when } WQO > B$$

Where WQO = water quality objective (adjusted as described in Step 2b)

D = Dilution Credit = 65

B = ambient background concentration = 0.08 mg/L

$$1\text{-hour Average} = 8.30 + 65 \times (8.30 - 0.08) = 542.5 \text{ mg/L}$$

$$4\text{-day Average} = 1.25 + 65 \times (1.25 - 0.08) = 77.1 \text{ mg/L}$$

**Step 2b: Adjust the unionized saltwater ammonia objective to an ECA expressed as total ammonia.**

Total Ammonia =

$$[\text{NH}_4^+] + [\text{NH}_3] = [\text{NH}_3] + [\text{NH}_3] \times 10^{[pK_a^S + 0.0324 \times (298 - T) + 0.0415 \times \frac{P}{T} - pH]}$$

Where P = 1 atm

T = temperature (°K)

$$pK_a^S = 0.116 \times i + 9.245$$

$$i = 19.9273 S (1000 - 1.005109 S)^{-1}$$

S = Salinity

$$\text{1-hour Average} = (0.233 \text{ mg/L}) + (0.233 \text{ mg/L}) \times 10^{[9.32 + 0.0324 \times (298 - 290.03) + 0.0415 \times (1/290.03) - 8.04]} = 8.30 \text{ mg (Total Ammonia)}$$

$$\text{4-day Average} = (0.035 \text{ mg/L}) + (0.035 \text{ mg/L}) \times 10^{[9.32 + 0.0324 \times (298 - 290.03)] + 0.0415 \times (1 / 290.03) - 7.93]} = 1.25 \text{ mg (Total Ammonia)}$$

**Step 3: For each ECA calculated in Step 2, determine the long-term average discharge condition (LTA)**

$$\text{ECA multiplier}_{1\text{-hour}99} = 0.156$$

$$\text{ECA multiplier}_{4\text{-day}99} = 0.287$$

$$\text{LTA}_{1\text{-hour}99} = \text{ECA}_{1\text{-hour}} \times \text{ECA multiplier}_{1\text{-hour}99} = 542.5 \times 0.155 = 84.3 \text{ mg/L}$$

$$\text{LTA}_{4\text{-day}99} = \text{ECA}_{4\text{-day}99} \times \text{ECA multiplier}_{4\text{-day}99} = 77.1 \times 0.287 = 22.1 \text{ mg/L}$$

**Step 4: Select the lowest (most limiting) of the LTAs derived in Step 3 (LTA<sub>min</sub>): 22.1 mg/L**

**Step 5: Calculate Water quality based effluent limitations (a maximum daily effluent limitation (MDEL) and an average monthly effluent limitation (AMEL)).**

$$\text{MDEL} = \text{LTA}_{\text{min}} \times \text{MDEL multiplier}_{99} = (22.1 \text{ mg NH}_3/\text{L}) \times 6.4 \times (14 \text{ g N} / 17 \text{ g NH}_3) \cong 117 \text{ mg NH}_3\text{-N}$$

$$\text{AMEL} = \text{LTA}_{\text{min}} \times \text{AMEL multiplier}_{95} = (32.6 \text{ mg/L NH}_3/\text{L}) \times 3.2 \times (14 \text{ g N} / 17 \text{ g NH}_3) \cong 58 \text{ mg NH}_3\text{-N}$$

**h. Indicator Bacteria**

This Order does not include effluent limitations for bacteria but establishes receiving water bacteria limitations for REC-I beneficial use based on the Bacteria Provisions. This Order also carries over the receiving water bacteria water quality objective for the Harbor to protect potential SHELL beneficial uses.

**i. Temperature**

The Thermal Plan contains temperature objectives for enclosed bays. The requirements of this Order implement the Thermal Plan, and the following limitations shall apply:

*Elevated temperature waste discharges shall comply with limitations necessary to assure protection of beneficial uses.*

The USEPA document, *Quality Criteria for Water 1986* [EPA 440/5-86-001, May 1, 1986], also referred to as the *Gold Book*, discusses temperature and its effects on beneficial uses, such as recreation and aquatic life.

- i. The Federal Water Pollution Control Administration in 1967 called temperature “a catalyst, a depressant, an activator, a restrictor, a stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water.” The suitability of water for total body immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).
- ii. Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.
- ii. Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

Based on the requirements of the Thermal Plan and a white paper developed by Los Angeles Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region (White Paper)*, a maximum daily effluent temperature limitation of 86°F was included in Order No. R4-2015-0119 to protect the beneficial uses of the receiving water. This temperature effluent limitation did not take into account the rapid mixing that occurs at the outfall diffuser and the ambient water temperatures of the Harbor.

As noted in 1.6 of the Fact Sheet, a dilution study with a dilution credit of 65 was approved for the discharge from the Terminal Island’s outfall prior to the adoption of Order No. R4-2015-0119. The outfall diffuser is 800 feet long with 50 ports facing horizontally away from the pipe on one side with 16 foot spacing, staggered by 8 feet with an additional 50 ports on the opposite site. As noted in the 2014 dilution study on page 26, the temperature gradients at the outfall rapidly decay upon mixing and “the effluent plume beyond the acute mixing zone

is much less than 1° C (1.8°F) warmer than ambient under typical operating conditions.” The acute mixing zone is 800 feet along the diffuser with 25 feet on each side perpendicular to the diffuser. Due to the vigorous mixing at the diffuser and the consistently cool temperature of the Outer Harbor, the beneficial uses outside the acute mixing zone will not be impacted by variations in the temperature of the effluent. The Discharger has confirmed this with the temperature monitoring at the Los Angeles Harbor Water Quality Stations located southeast of Pier 400 (refer to Figure E-1). The maximum temperature of the harbor as recorded by HW20 through 24, HW40 through 44, HW 50 through 54 and HW 62 through 64 from 2015 through 2020 is 72.446°F at HW54 on 8/27/2015. The average temperature recorded at the time for those stations was 72.061°F and the effluent temperature on 8/26/2015 was 84°F. Using an energy balance in the mixing zone, the calculated temperature outside the mixing zone would only be 72.28°F if the effluent temperature was increased to 86°F and 72.37°F if the effluent temperature was 92°F.

Although it has been demonstrated that the TIWRP effluent temperature will not increase the temperature of the receiving water more than a degree, it is still appropriate to include a temperature effluent limitation in this order. Since the Thermal Plan also has a Specific Water Quality Objective for new discharges into Enclosed Bays, it is reasonable to apply that objective to the TIWRP discharge. The requirement is as follows:

*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.*

Utilizing the 72°F maximum temperature of the Harbor from the previous permit term, which is the critical condition with respect to the receiving water temperature, the maximum daily temperature effluent limit included in this order is 92°F.

**j. Turbidity**

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The Basin Plan water quality objective for turbidity states “Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits: Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%. Allowable zones of dilution within which higher concentrations may be tolerated may be defined for each discharge in specific Waste Discharge Requirements.”

The previous permit (Order No. R4-2015-0119) required the Discharger to conduct the Los Angeles Harbor Natural Turbidity Special Study (Turbidity Special Study). The workplan of this special study was submitted on April 28,

2016 and subsequently approved by the Los Angeles Regional Board on May 4, 2016. The final report was received on March 30, 2017. A dilution credit of 65 is used to predict the influence of turbidity in the effluent on turbidity in the receiving water (See Section 1.6 of this Fact Sheet). The results of the prediction show that the discharge from the Facility will not cause an increase in turbidity in the receiving water of more than 20%.

Turbidity effluent limitations are revised based on the Basin Plan water quality objective, dilution credit of 65, and the Turbidity Special Study results. The Turbidity Special Study determined that the average receiving water turbidity around the outfall is 1.3 NTU with a standard deviation of 2.9 NTU. This shows that the natural turbidity in the receiving water is between 0 and 50 NTU. For this range, the Basin Plan allows an increase of turbidity of less than 20%. Based on the average and standard deviation values from the Turbidity Special Study, the 20% increase allowance from the Basin Plan, and the dilution credit of 65, the numeric effluent limitations are established as shown in Table 4 Effluent Limitations of the Waste Discharge Requirements.

#### 4.3.3. CTR and SIP

The CTR and the SIP specify numeric objectives for 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 pollutants. The Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses.

#### 4.3.4. Determining the Need for WQBELs

The Los Angeles Water Board developed mass-based WQBELs for copper, lead, zinc, total PAHs, total DDT, and total PCBs associated with suspended sediment that have WLAs established in TMDLs. The Los Angeles Water Board developed WQBELs for these pollutants pursuant to 40 CFR section 122.44(d)(1)(vii), which does not require or contemplate a separate reasonable potential analysis at the time of permit development. Similarly, the SIP at Section 1.3 recognizes that a separate reasonable potential analysis at the time of permit development is not appropriate if a TMDL has been developed.

In accordance with Section 1.3 of the SIP, the Los Angeles Water Board conducted a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Los Angeles Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that demonstrate reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Los Angeles Water Board staff identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Discharger. Data collected between August 2015 and June 2020 were used to calculate the final effluent limitations. For pollutants without RP and all where all analytical results were non-

detect, the effluent monitoring is kept at semiannual. For the pollutants without RP but with some detected concentrations, the effluent monitoring is kept at quarterly.

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 an RPA:

**Trigger 1** – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

**Trigger 2** – If background water quality (B) > C and the pollutant is detected in the effluent, a limitation is needed.

**Trigger 3** – If other related information such as CWA 303(d) listing for a pollutant, discharge type, compliance history, then best professional judgment is used to determine that a limit is needed.

Sufficient effluent and ambient 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.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. Based on the RPA, pollutants that demonstrate reasonable potential are copper, nickel, cyanide, dibenzo(a,h)anthracene, and 4,4'-DDT and 4,4'-DDD because the MEC is greater than the C. TCDD effluent limitations are maintained to avoid backsliding due to the inability to determine RP because the method detection limit for TCDD is almost 10,000 times higher than the applicable water quality objective, and all reported effluent data for TCDD were non-detect. The following table summarizes results from the RPA.

**Table F-6. Summary of Reasonable Potential Analysis**

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
1	Antimony	4300	1.5	---	No	MEC<C
2	Arsenic	36	12.3	---	No	MEC<C
3	Beryllium	Narrative	0.14	---	No	MEC<C
5a	Chromium III	Narrative	9.5	---	No	MEC<C
5b	Chromium VI	50	0.3	---	No	MEC<C
6	<b>Copper</b>	3.7	56.3	1.113	<b>Yes</b>	MEC>C
7	Lead	8.5	0.4	---	No	MEC<C
8	Mercury	0.012	0.005 (note a)	---	No	MEC<C
9	<b>Nickel</b>	8.3	15.7	0.855	<b>Yes</b>	MEC>C

CTR No.	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Concentration (MEC) µg/L	Maximum detected Receiving Water Concentration (B) µg/L	RPA Result – Need Limitation?	Reason
10	Selenium	71	14.8	---	No	MEC<C
11	Silver	2.2	0.3	---	No	MEC<C
12	Thallium	6.3	0.7	---	No	MEC<C
13	Zinc	86	32.6	---	No	MEC<C
14	<b>Cyanide</b>	1	6	---	<b>Yes</b>	MEC>C
16	2,3,7,8-TCDD (Dioxin)	0.014 pg/L	<110 pg/L	0.99 pg/L	Yes	Undetermined
19	Benzene	71	0.2	---	No	MEC<C
20	Bromoform	360	1.6	---	No	MEC<C
23	Dibromochloromethane	34	4	---	No	MEC>C
27	Dichlorobromomethane	46	2.1	---	No	MEC>C
39	Toluene	200,000	0.1	---	No	MEC<C
54	Phenol	4,600,000	0.9	---	No	MEC<C
55	2,4,6-trichlorophenol	6.5	1.98	---	No	MEC<C
70	Butylbenzyl Phthalate	5,200	0.27	---	No	MEC<C
74	<b>Dibenzo(a,h) Anthracene</b>	0.049	0.1	---	<b>Yes</b>	MEC>C
79	Diethyl Phthalate	120,000	1.5	---	No	MEC<C
81	Di-n-Butyl Phthalate	12,000	0.6	---	No	MEC<C
100	Pyrene	11,000	0.04	---	No	MEC<C
108	<b>4,4'-DDT</b>	0.00059	0.011	---	<b>Yes</b>	MEC>C
110	<b>4,4'-DDD</b>	0.00084	0.004	---	<b>Yes</b>	MEC>C

**Footnote for Table F-6**

a. Based on the Mercury Provisions, the highest observed annual average effluent mercury concentration is calculated as an arithmetic mean of all effluent samples during a calendar year. For a sample reported as below the detection limit, one half of the detection limit is used to calculate the annual arithmetic mean.

**End of Footnote for Table F-6**

**4.3.5. WQBEL Calculations**

- a. **Calculation Options.** Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include the use of dilution credits granted by the Los Angeles

Water Board. Copper, nickel, cyanide, dibenzo(a,h)anthracene, 4,4'-DDT, and 4,4'-DDD had reasonable potential to exceed the criteria based on final effluent data. The ambient background concentrations in the receiving water were below the water quality criteria so a dilution credit of 65 was approved for use in calculating effluent limitations for these pollutants.

- b. **SIP Calculation Procedure.** Section 1.4 of the SIP requires the step-by-step procedure to “adjust” or convert CTR numeric criteria into AMELs and MDELs, for toxics.

Step 3 of Section 1.4 of the SIP (page 8) lists the statistical equations that adjust CTR criteria for effluent variability.

Step 5 of Section 1.4 of the SIP (page 10) lists the statistical equations that adjust CTR criteria for averaging periods and exceedance frequencies of the criteria/objectives. This section also reads, “For this method only, maximum daily effluent limitations shall be used for POTWs in place of average weekly limitations.

***Sample calculation for with dilution credit for copper:***

**Step 1: Identify applicable water quality criteria.**

From the CTR, we can obtain the Criterion Maximum Concentration (CMC) and the Criterion Continuous Concentration (CCC).

Saltwater Aquatic Life Criteria:

CMC = 5.8 µg/L (CTR page 31712, column B1) and  
CCC = 3.7 µg/L (CTR page 31712, column B1); and

The above numeric values are for total recoverable copper.

**Step 2: Calculate effluent concentration allowance (ECA)**

$$ECA = C + D \times (C - B), \text{ when } C > B$$

C = Criteria in CTR

D = Dilution Credit

B = Ambient Background Concentration (Based on Port of Los Angeles Water Quality Survey Data collected at Stations LA-18 and LA-19 that are outside the mixing zone of the Outfall)

Therefore,

$$ECA \text{ acute} = 5.8 \mu\text{g/L} + 65 \times (5.8 \mu\text{g/L} - 1.1 \mu\text{g/L}) = 311.3 \mu\text{g/L}; \text{ and,}$$

$$ECA \text{ chronic} = 3.7 \mu\text{g/L} + 65 \times (3.7 \mu\text{g/L} - 1.1 \mu\text{g/L}) = 172.7 \mu\text{g/L}$$

**Step 3: Determine long-term average (LTA) discharge condition**

Calculate CV:

$$CV = \text{Standard Deviation}/\text{Mean} = 15.09/16.24 = 0.93$$

ECA Multiplier acute = 0.218 and

ECA Multiplier chronic = 0.394



LTA acute = ECA acute × ECA Multiplier acute = 311.3 µg/L × 0.218 = 67.84 µg/L

LTA chronic = ECA chronic × ECA Multiplier chronic = 172.7 µg/L × 0.394 = 68.11 µg/L

**Step 4: Select the lowest LTA**, which is 67.84 µg/L

**Step 5: Calculate the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for AQUATIC LIFE**

Find the multipliers.

AMEL Multiplier = 1.877

MDEL Multiplier = 4.589

AMEL aquatic life = lowest LTA (from Step 4) × AMEL Multiplier = 67.84 µg/L × 1.877 = 127.3 µg/L

MDEL aquatic life = lowest LTA (from Step 4) × MDEL Multiplier = 67.84 µg/L × 4.589 = 311.3 µg/L

**Step 6: Find the Average Monthly Effluent Limitation (AMEL) & Maximum Daily Effluent Limitation (MDEL) for HUMAN HEALTH**

It is not available, due to no human health CTR.

**Step 7: Compare the AMELs for Aquatic life and Human health and select the lowest. Compare the MDELs for Aquatic life and Human health and select the lowest**

Lowest AMEL ≅ 130 µg/L (based on aquatic life protection)

Lowest MDEL ≅ 310 µg/L (based on aquatic life protection)

**c. TMDL WLA-Based Limitations – Copper, Lead, Zinc, PAHs, DDT, and PCBs**

Mass-based final WLAs were established for TIWRP in the Harbor Toxics TMDL. WLA-based limits were included for copper, lead, zinc, PAHs, DDT, and PCBs as the total mass discharged over the year, consistent with the Harbor Toxics TMDL. The Facility's discharge is currently able to comply with the final WLA-based limitations.

**d. Impracticability Analysis**

Federal NPDES regulations contained in 40 CFR § 122.45 (continuous discharges) states that, for POTWs, all permit limitations, standards, and prohibitions, including those to achieve water quality standards, shall unless impracticable be stated as average weekly, and average monthly.

As stated by USEPA in its long-standing guidance for developing WQBELs, use of average weekly and average monthly limitations alone are not practical for limiting acute, chronic, and human health toxic effects.

For example, a POTW sampling for a toxicant to evaluate compliance with a 7-day average limitation could fully comply with this average limit, but still be

discharging toxic effluent on one, two, three, or up to four of these seven days and not be meeting 1-hour average acute criteria or 4-day average chronic criteria. Similarly, a 7-day average alone would not protect one, two, three, or four days of discharging pollutants in excess of the acute and chronic criteria.

For this reason, USEPA recommends daily maximum and 30-day average limits for regulating toxics in all NPDES discharges. For the purposes of protecting the acute effects of discharges containing toxicants, daily maximum limitations have been established in this NPDES permit for certain priority pollutants. Thirty-day (or monthly) average limitations have been established for priority pollutants that cause chronic or long-term impacts because they are carcinogenic, bioaccumulative and/or endocrine disruptors.

**e. Mass-based limits**

40 CFR § 122.45(f)(1) requires that, except under certain conditions, or for certain pollutants, all permit limits, standards, or prohibitions be expressed in terms of mass units. 40 CFR § 122.45(f)(2) allows the permit writer, at his/her discretion, to express limits in additional units (e.g., concentration units). The regulations mandate that, where limits are expressed in more than one unit, the permittee must comply with both.

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents.

**Table F-7. Summary of WQBELs for Pollutants with RP for Discharge Point 001**

Parameter	Units	Average Monthly	Maximum Daily	Notes
MBAS	mg/L	33	---	a
Turbidity	NTU	18.5	60	a
Ammonia Nitrogen	mg/L	58	120	a
Copper	µg/L	130	310	a
Nickel	µg/L	420	740	a
Cyanide	µg/L	33	66	a
2,3,7,8-TCDD	pg/L	0.014	0.027	b
Dibenzo(a,h)Anthracene	lbs/day	3.2	6.5	a
4,4-DDT	µg/L	0.039	0.078	a
4,4-DDD	µg/L	0.039	0.078	a

Parameter	Units	Average Monthly	Maximum Daily	Notes
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	Pass or % Effect <50	a and c

**Footnotes for Table F-7**

- a. A dilution credit of 65 has been approved for this constituent.
- b. Carryover from the Order No. R4-2015-0119-A01.
- c. 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.” 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.”

**End Footnotes for Table F-7**

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

Whole effluent toxicity (WET) testing protects receiving waters from the aggregate toxic effect of a mixture of pollutants in the effluent or pollutants that are not typically monitored. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period of time and may measure a sublethal endpoint such as reproduction or growth in addition to mortality. A constituent present at low concentrations may exhibit a chronic effect; however, a higher concentration of the same constituent may be required to produce an acute effect. Because of the nature of industrial discharges into the POTW sewershed, toxic constituents (or a mixture of constituents exhibiting toxic effects) may be present in the TIWRP effluent to cause toxicity. According to the results of monthly toxicity data collected from August 2015 to June 2020, toxicity was exceeded one (1) time in May 2019. The Los Angeles Water Board has determined that reasonable potential exists for chronic toxicity, as a result, this Order contains effluent limitation for chronic toxicity.

In the past, the State Water Board reviewed circumstances warranting a numeric chronic toxicity effluent limitation for POTWs when there is reasonable potential. (See SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions].) On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 deferring the issue of numeric chronic toxicity effluent limitation for POTWs until a subsequent Phase of the SIP is adopted. In the meantime, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. The Camrosa WRF’s NPDES permit contained a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring, consistent with the State Water Board’s precedential Order.

However, many facts have changed since the State Water Board adopted the Los Coyotes Order in 2003. Namely, USEPA published two new guidance documents

with respect to chronic toxicity; the Los Angeles Los Angeles Water Board has adopted NPDES permits for POTWs and industrial facilities incorporating TST-based effluent limitations for chronic toxicity and has adopted numeric chronic toxicity effluent limitations. In addition, the State Water Board adopted statewide numeric water quality objectives for both acute and chronic toxicity and a program of implementation to control toxicity, which are collectively known as the Toxicity Provisions on December 1, 2020. The Toxicity Provisions provide consistent protection of aquatic life beneficial uses in inland surface waters, enclosed bays, and estuaries throughout the state, and protect aquatic habitats and life from the effects of known and unknown toxicants. The Provisions are not yet in effect. The Provisions will take effect upon approval by the California Office of Administrative Law for purposes of state law and upon approval by the U.S. Environmental Protection Agency for purposes of federal law. Due to the Alaska Rule, as described in section 3.3.5, this Order does not implement the Toxicity Provisions until it is approved by the USEPA.

The Los Angeles Water Board finds that numeric effluent limitations for chronic toxicity are necessary, feasible, and appropriate.

For this permit, chronic toxicity in the discharge is evaluated using a median monthly effluent limitation and a maximum daily effluent limitation that utilizes USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach. The chronic toxicity effluent limitations are expressed as "Pass" for the median monthly summary result and as "Pass" or "<50 % Effect" for each maximum daily individual result.

In January 2010, USEPA published a guidance document titled *EPA Regions 8, 9 and 10 Toxicity Training Tool*, which among other things discusses permit limit expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR 122.45(d) require that all permit limits be expressed, unless impracticable, as an Average Weekly Effluent Limitation (AWEL) and an Average Monthly Effluent Limitation (AMEL) for POTWs. Following Section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL is not appropriate for WET. In lieu of an AWEL for POTWs, USEPA recommends establishing a Maximum Daily Effluent Limitation (MDEL) for toxic pollutants and pollutants in water quality permitting, including WET. This is appropriate for two reasons. The basis for the average weekly requirement for POTWs derives from secondary treatment regulations and is not related to the requirement to assure achievement of WQS. Moreover, an average weekly requirement comprising up to seven daily samples could average out daily peak toxic concentrations for WET and therefore, the discharge's potential for causing acute and chronic effects would be missed. It is impracticable to use an AWEL because short-term spikes of toxicity levels that would be permissible under the 7-day average scheme would not be adequately protective of all beneficial uses. The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. The AMEL is the highest allowable value for the average of daily discharges obtained over a calendar month. For WET, this is the average of individual WET test results for that calendar month. However, in cases where a chronic mixing zone is not authorized, USEPA Regions 9 and 10 continue to

recommend that the AMEL for chronic WET should be expressed as a Median Monthly Effluent Limit (MMEL).

Later in June 2010, USEPA published another guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: “Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program.” The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to 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 Marine and Estuarine Organisms* (EPA/821/R-02/014, 2002), recognizes that, “the statistical methods in this manual are not the only possible methods of statistical analysis.” The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

USEPA’s WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. USEPA’s WET methods do not require achievement of specified effluent or ambient concentration-response patterns prior to determining that toxicity is present. Nevertheless, USEPA’s acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed – as a component of test review following statistical analysis – to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2). In 2000, EPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (NOEC, LC50s, IC25s) were calculated appropriately (EPA 821-B-00-004).

USEPA designed its 2000 guidance as a standardized step-by-step review process that investigates the causes for ten commonly observed concentration-response patterns for NOECs, LC50s, and IC25s, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by EPA’s 2000 guidance decreased discrepancies in data interpretation for NOEC, LC50, and IC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA’s TST statistical approach (Pass/Fail) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of WPA’s

2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria and other test review procedures – including those related to Quality Assurance for effluent and receiving water toxicity tests, reference toxicant tests, and control performance (mean, standard deviation, and coefficient of variation) – described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The Los Angeles Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t-test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or PMSDs must be submitted for review by the Los Angeles Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditations Program (40 CFR 122.44(h)). The PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results.

#### **4.4. Final Effluent Limitation Considerations**

##### **4.4.1. Anti-Backsliding Requirements**

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 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. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, with the exception of effluent limitations for ammonia, cyanide, copper, and temperature.

##### Ammonia, Copper, and Cyanide: Attainment Waters

The final effluent limitations for ammonia, copper, and cyanide are relaxed, compared to the 2015 permit, based on the most recent data used to calculate WQBELs.

Pursuant to CWA section 303(d)(4)(B), a water quality-based effluent limitation may be relaxed for discharges to receiving waters that are in attainment for the pollutants as long as the action complies with the state's antidegradation policy. The Los Angeles Harbor is an attainment water for ammonia, copper, and

cyanide in the water column because the concentrations of ammonia, copper, and cyanide in the receiving water do not exceed the applicable water quality standards in the water column. The monitoring data, collected from August 2015 to June 2020, showed that the average receiving water ammonia concentration at stations HW23, HW24, and HW44 was 0.032 mg/l and the maximum was 0.08 mg/l. The monitoring data, collected from May 2005 to January 2008, showed that the average receiving water copper concentration at stations LA-18 and LA-19 was 0.911 µg/l and the maximum was 1.113 µg/l. There are currently no receiving water monitoring data for cyanide. However, based on the available cyanide effluent monitoring data, and assuming a dilution credit of 65, the receiving water outside the mixing zone will not exceed water quality objectives. The ammonia, copper, and cyanide limitations have thus been relaxed because the Los Angeles Harbor is in attainment for these constituents and, as discussed below, are consistent with the State's antidegradation policies.

#### Temperature: Attainment Waters

Section 303(d)(4)(B) of the CWA allows relaxation of effluent limitations where the quality of the receiving water "equals or exceeds the levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards ... if such revision is subject to and consistent with the antidegradation policy." The LA Outer Harbor is an attainment water for temperature because temperatures in the receiving water do not exceed the applicable water quality standards. The monitoring data, collected from 2015 to 2020, showed that the maximum temperature of the Harbor as measured by multiple receiving water monitoring locations, HW20 through 24, HW40 through 44, HW 50 through 54 and HW 62 through 64, is 72.446° F at HW54 on 8/27/2015. The average temperature measured at the time for those stations was 72.061°F and the effluent temperature on 8/26/2015 was 84°F. Due to the vigorous mixing at the diffuser and the consistently cool temperature of the Outer Harbor, the beneficial uses outside the acute mixing zone will not be impacted by variations in the temperature of the effluent. For example, using an energy balance in the mixing zone, the calculated temperature outside the mixing zone would only be 72.28°F if the effluent temperature was increased to 86°F and 72.37°F if the effluent temperature was raised to 92°F. Therefore, the exception to the prohibition on relaxation of effluent limitations found in section 303(d)(4)(B) is applicable because the LA Outer Harbor is not impaired for temperature, and as further described below, relaxation of effluent limitation for temperature is consistent with the state and federal antidegradation policies.

#### **4.4.2. Antidegradation Policies**

40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution No. 68-16, *Statement of Policy with Respect to Maintaining the Quality of the Waters of the State*. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order No. 86-17

and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR section 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR section 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded as a result of the permitted discharge. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

State Water Board Resolution No. 68-16 requires regional water quality control boards, in regulating the discharge of waste, to maintain high quality waters of the state until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the state, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in a regional water quality control board's plans and policies (e.g., quality that exceeds applicable water quality objectives). Resolution No. 68-16 also states, in part: Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in best practicable treatment and control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

This Order implements the antidegradation policies. This Order is consistent with the maximum benefit to the people of the state because it allows for the continued discharge of wastewater using existing technology while the discharge is phased out in compliance with the Enclosed Bays and Estuaries Policy and Los Angeles Water Board Resolution 94-009. In addition, the increase in recycling is a benefit to the people of the state. This Order will not unreasonably affect beneficial uses because, as described in Section 4.1.1, the receiving water outside the mixing zone will not exceed water quality objectives set to protect beneficial uses. The effluent limits in this Order hold the Permittee to discharge levels that will not cause or contribute to exceedances of water quality objectives outside the mixing zone. Finally, the treatment required by this Order is the best practicable treatment or control necessary to prevent pollution or nuisance and maintain the highest water quality consistent with maximum benefit to the people of the State. While the current level of treatment and control at the Facility can produce effluent that meets the effluent limits in the previous permit, the effluent concentrations could change as recycling increases as part of the discharge phase-out. It is therefore necessary to allow for effluent limits for ammonia, copper, cyanide, and temperature in this Order that are less stringent than those in the previous permit. This Order requires continued monitoring of these constituents in the receiving water to ensure that concentrations do not exceed water quality objectives. If monitoring reports required by this Order indicate any change in the concentration of these constituents in the effluent or receiving water that would cause an exceedance of water quality objectives or impairment of beneficial uses, the Los Angeles Water Board may modify the terms of this Order. Therefore, discharges permitted in this Order are consistent with the



antidegradation provisions of 40 CFR § 131.12 and State Water Board Resolution No. 68-16.

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

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on BOD, TSS, and percent removal of BOD and TSS. Restrictions on BOD, TSS, and percent removal of BOD and TSS are discussed in section 4.2. of the Fact Sheet. This Order’s technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements as necessary to meet water quality standards.

Water quality-based effluent limitations have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved or established (in the case of CTR criteria) pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR and SIP. All beneficial uses and WQOs contained in the Basin Plan or statewide water quality control plans were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA.

**Table F-8. Summary of Final Effluent Limitations for Discharge Point 001**

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Applicable Notes
BOD <sub>5</sub> 20°C	mg/L	15	30	40	a
BOD <sub>5</sub> 20°C	lbs/day	3,800	7,500	10,000	b
TSS	mg/L	15	30	40	a
TSS	lbs/day	3,800	7,500	10,000	b
Temperature	°F	---	---	92	j
Removal Efficiency for BOD and TSS	%	≥85	---	---	d
Oil and Grease	mg/L	10	---	15	a
Oil and Grease	lbs/day	2,500	---	3,800	b
Settleable Solids	ml/L	0.1	---	0.3	c
Total Residual Chlorine	mg/L	---	---	0.1	c
Total Residual Chlorine	lbs/day	---	---	25	b

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Applicable Notes
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % Effect < 50	e and f
MBAS	mg/L	33	---	---	c, f, and g
MBAS	lbs/day	8,300	---	---	b
Turbidity	NTU	18.5	---	60	c, f and g
Total Ammonia	mg/L	57	---	120	c, f, and g
Total Ammonia	lbs/day	15,000	---	30,000	b
Copper	µg/L	130	---	310	f, g, and h
Copper	lbs/day	32	---	78	b
Nickel	µg/L	420	---	740	f, g, and h
Nickel	lbs/day	100	---	180	b
Cyanide	µg/L	33	---	66	f, g, and h
Cyanide	lbs/day	8.3	---	17	b
2,3,7,8-TCDD	pg/L	0.014	---	0.027	a
2,3,7,8-TCDD	lbs/day	3.5E-6	---	6.8E-6	b
Dibenzo(a,h)-Anthracene	µg/L	3.2	---	6.5	f, g, and h
Dibenzo(a,h)-Anthracene	lbs/day	0.80	---	1.6	b
P,P-DDT	µg/L	0.039	---	0.078	f, g, and h
P,P-DDT	lbs/day	0.0098	---	0.020	b
P,P-DDD	µg/L	0.039	---	0.078	f, g, and h
P,P-DDD	lbs/day	0.0098	---	0.020	b
Copper	Kg/yr	80.4	---	---	i
Lead	Kg/yr	183.6	---	---	i
Zinc	Kg/yr	1,845	---	---	i
Total PAHs	Kg/yr	1.056	---	---	i
Total DDT	Kg/yr	12.7	---	---	i
Total PCBs	Kg/yr	0.37	---	---	i

**Footnotes for Table F-8**

a. Carryover of limits specified in Order No. R4-2015-0119-A01.

- b. The mass-based effluent limitations are based on the allowable flow rate of 30 mgd and calculated as follows:  $\text{Flow (mgd)} \times \text{Concentration (mg/L)} \times 8.34$  (conversion factor) = lbs/day.
- c. Water qualitative objective in the Basin Plan.
- d. 40 CFR part 133.
- e. Pass under Average Monthly means “Median Monthly Effluent Limitation”.
- f. Dilution credit of 65.
- g. Reasonable potential to exceed water quality objective/criterion.
- h. Water quality criterion in the California Toxics Rule.
- i. WLAs in the Harbor Toxics TMDL.
- j. Based on the maximum temperature of the Harbor during the previous permit term plus 20 degrees and in consideration of the dilution credit of 65, which has been approved for this constituent.

#### **End of Footnotes for Table F-8**

- a. pH shall be maintained in the final effluent within the limits of 6.5 and 8.5.

#### **4.5. Interim Effluent Limitations – Not Applicable**

#### **4.6. Land Discharge Specifications – Not Applicable**

#### **4.7. Recycling Specifications**

4.7.1. Current Reclaimed Projects – The production, distribution, and reuse of recycled water are presently regulated under Water Reclamation Requirements (WRRs) and Waste Discharge Requirements (WDRs) Order No. R4-2003-0025 (Harbor Water Recycling Project (HWRP) for nonpotable applications) and R4-2016-0334 (HWRP for injection at Dominguez Gap Barrier), adopted by this Board on January 30, 2003 and October 13, 2016, respectively. The HWRP programs are being undertaken by the Discharger to comply with Los Angeles Water Board Resolution No. 94-009 to ultimately phase out discharge of wastewater into the Los Angeles Harbor.

4.7.2. Future Reclaimed Project – There are three (3) recycled water users, WRD, Air Products, and Ultramar that individually need AWPf water up to 9.5, 2.5, and 1 MGD, respectively. For the sustainable future, the Discharger is reaching out to other recycled water producers, i.e. West Basin, and the Joint Water Pollution Control Plant to augment the available recycled water supply to match current and future demand. See section 1.7. of Fact Sheet for more detailed information.

### **5. RATIONALE FOR RECEIVING WATER LIMITATIONS**

#### **5.1. Surface Water**

Receiving water limitations are based on WQOs contained in the Basin Plan and applicable statewide water quality control plans and are a required part of this Order.

## 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 regulations, modification in sludge use or disposal practices, 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. **Antidegradation Analysis and Engineering Report for Any Proposed Plant Expansion.** This provision is based on State Water Board Resolution No. 68-16, which requires the Los Angeles Water Board in regulating the discharge of waste to maintain high quality waters of the state. The Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to submit a report to the Los Angeles Water Board for approval for any proposed plant expansion with specific time schedules. In case that the Discharger is seeking to obtain alternative effluent limitations for the discharge from the new treatment system(s), the Discharger must demonstrate that the plant capacity has increased through the addition of new treatment system(s) and has implemented adequate controls to ensure not to degrade water quality of the receiving waters.
- b. **Operations Plan for Proposed Expansion.** This provision is based on section 13385(j)(1)(D) of the CWC and allows a time period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Permittee to submit an Operations Plan describing the actions the

Discharger will take during the period of adjusting and testing to prevent violations.

- c. **Treatment Plant Capacity.** The treatment plant capacity study required by this Order shall serve as an indicator for the Los Angeles Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.
- d. **Discharge Phase-Out Workplan.** The discharge phase-out workplan required by this Order shall help the Discharger cease the discharge of the tertiary-treated effluent from the Facility to the LA Harbor by 2024.

### 6.2.3. Best Management Practices and Pollution Prevention

**Pollution Minimization Program (PMP).** This provision is based on the requirements of section 2.4.5 of the SIP.

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

This provision is based on the requirements of 40 CFR section 122.41(e) and the previous order.

### 6.2.5. Special Provisions for Publicly-Owned Treatment Works (POTWs)

- a. **Biosolids Requirements.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.
- b. **Pretreatment Requirements.** This permit contains pretreatment requirements consistent with applicable effluent limitations, national standards of performance, and toxic and performance effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 403, 404, 405, and 501 of the CWA, and amendments thereto. This permit contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the CWA; 40 CFR 35 and 403; and/or Section 2233, Title 23, California Code of Regulations.
- c. **Filter Bypass Requirements.** Conditions pertaining to bypass are contained in Attachment D, Section I. Standard Provisions – Permit Compliance, subsection G. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters. These anticipated discharges are approved under the bypass conditions when the resulting combined discharge of fully treated (tertiary) and partially treated

(secondary) wastewater complies with the effluent and receiving water limitations in this Order.

- d. **Spill Reporting Requirements.** This Order established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (SSS WDRs) on May 2, 2006. The Monitoring and Reporting Requirements for the SSS WDRs were amended by Water Quality Order WQ 2008-0002-EXEC on February 20, 2008. The SSS WDRs requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the SSS WDRs. The SSS WDRs requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions.

Furthermore, the SSS WDRs contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section 6.3.5. For instance, the 24-hour reporting requirements in this Order are not included in the SSS WDRs. The Discharger must comply with both the SSS WDRs and this Order.

In the past, the region has experienced loss of recreational use at coastal beaches as a result of major sewage spills. The SSS WDRs requirements are intended to prevent or minimize impacts to receiving waters as a result of spills.

#### 6.2.6. **Other Special Provisions (Not Applicable)**

#### 6.2.7. **Compliance Schedules (Not Applicable)**

### 7. **RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS**

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

Influent Monitoring is required:

- To determine compliance with the permit conditions for BOD<sub>5</sub>20°C and suspended solids removal rates.
- To assess treatment plant performance.

- To assess the effectiveness of the Pretreatment Program.
- As a requirement of the PMP.

7.2. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP Attachment E. This provision requires compliance with the MRP, and is based on 40 CFR sections 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in all NPDES permits (including this Order) issued by the Los Angeles Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Los Angeles Water Board policies. The MRP also contains sampling program specific for the Discharger’s wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with section 1.3 of the SIP, a periodic monitoring is required for all priority pollutants in the CTR, for which criteria exist and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the Facility, will be required as set forth in the MRP and as required in the SIP. Semi-annual monitoring for priority pollutants in the effluent is required in accordance with the Pretreatment requirements.

Monitoring frequency for the constituents is based on historic monitoring frequency, Best Professional Judgment, and the following criteria:

Criterion 1: Monitoring frequency will be monthly for those pollutants with reasonable potential to exceed water quality objectives (monitoring has shown an exceedance of the objectives);

Criterion 2: Monitoring frequency will be quarterly for those pollutants for which some or all of the historic effluent monitoring data detected the pollutants, but analysis did not indicate that there was reasonable potential for the pollutant to exceed water quality objectives;

Criterion 3: Monitoring frequency will be semiannually for those pollutants for which all of the historic effluent monitoring data have had non-detected concentrations of the pollutants and analysis did not indicate that there was reasonable potential for the pollutant to exceed water quality objectives.

**Table F-9. Monitoring Frequency Comparison**

<b>Parameter</b>	<b>Monitoring Frequency (2015 Permit)</b>	<b>Monitoring Frequency (2021 Permit)</b>
Total waste flow	Continuous	No change
Total residual chlorine	Continuous	No change

<b>Parameter</b>	<b>Monitoring Frequency (2015 Permit)</b>	<b>Monitoring Frequency (2021 Permit)</b>
Turbidity	Continuous	No change
Temperature	Weekly	No change
pH	Weekly	No change
Settleable solids	Weekly	No change
Total suspended solids	Weekly	No change
Oil and grease	Weekly	No change
BOD <sub>5</sub> 20°C	Weekly	No change
Dissolved Oxygen	Weekly	No change
Total coliform	--	Weekly
Enterococcus	--	Weekly
MBAS	Monthly	No change
CTAS	Monthly	No change
Ammonia nitrogen	Monthly	No change
Nitrate + nitrite (as nitrogen)	Monthly	No change
Organic nitrogen	Monthly	No change
Total nitrogen	Monthly	No change
Chronic toxicity	Monthly	No change
Beryllium	Semiannually	Quarterly
Total chromium	Quarterly	No change
Chromium VI	Semiannually	Quarterly
Copper	Monthly	No change
Lead	Monthly	No change
Nickel	Quarterly	Monthly
Zinc	Quarterly	No change
Total PAHs	Monthly/Quarterly	No change
Total DDT	Monthly/Quarterly	No change
Total PCBs	Annually/Quarterly	No change
Cyanide	Monthly	No change
Remaining Priority Pollutants - Metals	Quarterly	No change
2,3,7,8-TCDD	Quarterly	Semiannually
Benzene	Semiannually	No change



<b>Parameter</b>	<b>Monitoring Frequency (2015 Permit)</b>	<b>Monitoring Frequency (2021 Permit)</b>
Bromoform	Semiannually	Quarterly
Dibromochloromethane	Quarterly	No change
2-Chloroethyl Vinyl Ether	Semiannually	Quarterly
Chloroform	Quarterly	No change
Dichlorobromomethane	Quarterly	No change
Methylene chloride	Quarterly	No change
Tetrachloroethylene	Quarterly	Semiannually
Toluene	Quarterly	No change
Trichloroethylene	Quarterly	Semiannually
Phenol	Semiannually	No change
2,4,6-Trichlorophenol	Quarterly	No change
Benzo(A)pyrene	Semiannually	No change
Bis(2-Chloroisopropyl)ether	Semiannually	No change
Bis(2-ethylhexyl)phthalate	Quarterly	No change
Butylbenzyl Phthalate	Semiannually	No change
Dibenzo(a,h)anthracene	Semiannually	Monthly
Diethyl Phthalate	Semiannually	Quarterly
Di-N-Butyl Phthalate	Semiannually	No change
Indeno(1,2,3-cd)pyrene	Semiannually	Quarterly
Phenanthrene	Semiannually	Quarterly
Pyrene	Quarterly	No change
P,P-DDD	Semiannually	Monthly
Pesticides	Semiannually	No change
PCBs as aroclors	Quarterly	No change
PCBs as congeners	Annually	No change
Remaining USEPA Priority Pollutants	Semiannually	No change
Tributyltin	Semiannually	No change
Radioactivity	Semiannually	No change

### 7.3. Whole Effluent Toxicity Testing Requirements

WET testing 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 short or

longer period and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 TST hypothesis testing approach. The chronic toxicity effluent limitations are as stringent as necessary to protect the Basin Plan Water Quality Objective for chronic toxicity. The rationale for WET has been discussed extensively in section 4.3.6. of this Fact Sheet.

#### **7.4. Receiving Water Monitoring**

##### **7.4.1. Surface Water**

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water.

##### **7.4.2. Groundwater – (Not Applicable)**

#### **7.5. Other Monitoring Requirements**

##### **7.5.1. Watershed and Bioassessment Monitoring**

The goals of the watershed-wide monitoring program, including the bioassessment monitoring, for the Dominguez Channel – Los Angeles/Long Beach Watershed Management Area are to:

- Determine compliance with receiving water limits;
- Evaluate progress in achieving numeric targets and waste load allocations in the Harbors Toxics TMDL;
- Monitor trends in surface water quality;
- Ensure protection of beneficial uses;
- Provide data for modeling contaminants of concern;
- Characterize water quality including seasonal variation of surface waters within the watershed
- Assess the health of the biological community; and
- Determine mixing dynamics of effluent and receiving waters in the estuary.

##### **7.5.2. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program**

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater

samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

## 8. CONSIDERATION OF NEED TO PREVENT NUISANCE AND CWC SECTION 13241 FACTORS

Some of the provisions/requirements in this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations. As required by CWC section 13263, the Los Angeles Water Board has considered the need to prevent nuisance and the factors listed in CWC section 13241 in establishing the state law provisions/requirements. The Los Angeles Water Board finds, on balance, that the state law requirements in this Order are reasonably necessary to prevent nuisance and to protect beneficial uses identified in the Basin Plan, and the section 13241 factors are not sufficient to justify failing to protect those beneficial uses.

8.1. Need to prevent nuisance: The state law requirements in this Order are required to prevent pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the CWC. Many are also required in accordance with narrative water quality objectives in the Basin Plan. These state requirements include, but are not limited to, spill prevention plans, operator certification, sanitary sewer overflow reporting, and requirements for standby or emergency power.

8.2. Past, present, and probable future beneficial uses of water: Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region. Beneficial uses of water relevant to this Order are also identified above in Section 3.3.

8.3. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto: The environmental characteristics are discussed in the Region's Watershed Management Initiative Chapter, as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available water, will be improved by compliance with the requirements of this Order. Additional information on the Dominguez Channel and Los Angeles/Long Beach Harbors Water Management Area is available at [https://www.waterboards.ca.gov/losangeles/water\\_issues/programs/regional\\_program/Water\\_Quality\\_and\\_Watersheds/ws\\_dominguez\\_channel.shtml](https://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/ws_dominguez_channel.shtml)

8.4. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area shall be considered. The beneficial uses of the waterbodies in the Harbor areas can reasonably be achieved through the coordinate control of all factors that affect water quality in the area. TMDLs have been developed (as required by the CWA) for many of the impairments in the receiving water. Several Los Angeles Water Board programs and actions are in place to

address the water quality impairments in the watershed, including regulation of point source municipal and industrial discharges with appropriate NPDES permits and non-point source discharges such as irrigated agriculture. All these regulatory programs control the discharge of pollutants to surface waters to prevent nuisance and protect beneficial uses. These regulatory programs have resulted in watershed solutions and have improved water quality. Generally, improvements in the quality of the receiving waters impacted by the permittee's discharges can be achieved by reducing the volume of discharges to receiving waters (e.g., through increased recycling), reducing pollutant loads through source control/pollution prevention, including operational source control such as pretreatment requirements and public education (e.g., disposal of pesticides, pharmaceuticals, and personal care products into the sewer) and product or materials elimination or substitution, and removing pollutants through treatment.

- 8.5. Economic considerations: The Permittee did not present any evidence regarding economic considerations related to this Order. However, the Los Angeles Water Board has considered the economic impact of requiring certain provisions pursuant to state law. The additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan. Further, the loss of, or impacts to, beneficial uses would have a detrimental economic impact. Economic considerations related to costs of compliance are therefore not sufficient, in the Los Angeles Water Board's determination, to justify failing to prevent nuisance and protect beneficial uses.
- 8.6. Need for developing housing within the region: The Los Angeles Water Board does not anticipate that these state law requirements will adversely impact the need for housing in the area. The region generally relies on imported water to meet many of its water resource needs. Imported water makes up a vast majority of the region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining amount. This Order helps address the need for housing by controlling pollutants in discharges, which will improve the quality of local surface and ground water, as well as water available for recycling and reuse. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development. A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary. Therefore, the potential for developing housing in the area will be facilitated by improved water quality.
- 8.7. Need to develop and use recycled water: The State Water Board's Recycled Water Policy requires the Los Angeles Water Boards to encourage the use of recycled water. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent. This Order requires the permittee to phase-out its tertiary treated effluent discharge by December 31, 2024. The Discharger plans to accomplish this requirement by recycling 100 percent of the effluent by that time.

## 9. PUBLIC PARTICIPATION

The Los Angeles Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the TIWRP. As a step in the WDR adoption process, the Los Angeles Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

### 9.1. 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, and the public notice, the fact sheet, and the draft order were posted on the Los Angeles Water Board's home page at <https://www.waterboards.ca.gov/losangeles/> under the "Tentative Permits" heading. Notification was also provided through the posting at the entrance to the Terminal Island Water Reclamation Plant, 445 Ferry Street, San Pedro, CA 90731. In addition, interested agencies and persons were notified of the Los Angeles Water Board's intention to prescribe WDRs for the discharge by being copied on an email transmitting the Tentative Permit to the Discharger.

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/>.

### 9.2. 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](mailto:losangeles@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 April 16, 2021**.

### 9.3. 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: June 10, 2021  
Time: 09:00 a.m.  
Location: Remote Meeting

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.

### 9.4. 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](mailto: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](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

#### **9.5. 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 by appointment 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 calling (213) 576-6600.

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

#### **9.6. 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.

#### **9.7. Additional Information**

Requests for additional information or questions regarding this order should be directed to Don Tsai at [don.tsai@waterboards.ca.gov](mailto:don.tsai@waterboards.ca.gov).

## **ATTACHMENT G - TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN**

1. Gather and Review Information and Data
  - 1.1. POTW Operations and Performance
  - 1.2. POTW Influent and Pretreatment Program
  - 1.3. Effluent Data, including Toxicity Results
  - 1.4. Sludge (Biosolids) Data
2. Evaluate Facility Performance
3. Conduct Toxicity Identification Evaluation (TIE)
4. Evaluate Sources and In-Plant Controls
5. Implement Toxicity Control Measures
6. Conduct Confirmatory Toxicity Testing

## ATTACHMENT H - BIOSOLIDS AND SLUDGE MANAGEMENT

1. All biosolids generated by the Permittee shall be reused or disposed of in compliance with the applicable portions of:
  - 1.1. 40 CFR part 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated; 40 CFR part 503 Subpart B (land application) applies to biosolids placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR part 503 Subpart C (surface disposal) applies to biosolids placed on the land for the purpose of disposal.
  - 1.2. 40 CFR part 258: for biosolids disposed of in Municipal Solid Waste landfills.
  - 1.3. 40 CFR part 257: for all biosolids disposal practices not covered under 40 CFR part 258 or 503.
2. The Permittee is responsible for assuring that all biosolids from its facility are used or disposed of in accordance with 40 CFR part 503, whether the Permittee reuses or disposes of the biosolids itself or transfers them to another party for further treatment, reuse, or disposal. The Permittee is responsible for informing subsequent preparers, applicators, or disposers of the requirements they must meet under 40 CFR part 503.
3. Duty to mitigate: The Permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal which may adversely impact human health or the environment.
4. No biosolids shall be allowed to enter wetland or other waters of the United States.
5. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.
6. Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.
7. The Permittee shall assure that haulers who transport biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.
8. If biosolids are stored for over two years from the time they are generated, the Permittee must ensure compliance with all the requirements for surface disposal under 40 CFR part 503 Subpart C, or must submit a written request to USEPA with the information in section 503.20 (b), requesting permission for longer temporary storage.
9. Sewage sludge containing more than 50 mg/kg PCB's shall be disposed of in accordance with 40 CFR part 761.
10. Any off-site biosolids treatment, storage, use or disposal site operated by the Permittee within Region 4 (Los Angeles Region of RWQCB) that is not subject to its own Waste Discharge Requirements shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.
11. Inspection and Entry: The Los Angeles Water Board, USEPA or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the



Permittee, directly or through contractual arrangements with their biosolids management contractors, to:

- 11.1. Enter upon all premises where biosolids are produced by the Permittee and all premises where Permittee biosolids are further treated, stored, used, or disposed, either by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.
- 11.2. Have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR part 503, by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.
- 11.3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the production of biosolids and further treatment, storage, use, or disposal by the Permittee or by another party to whom the Permittee transfers the biosolids for further treatment, storage, use, or disposal.

12. Monitoring shall be conducted as follows:

- 12.1. Biosolids shall be tested for the metals required in section 503.16 (for land application) or section 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solids Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(b)(4), at the following minimum frequencies:

<u>Volume (dry metric tons/year)</u>	<u>Frequency</u>
0 – 290	once per year
290 – 1500	once per quarter
1500 – 15000	once per 60 days
> 15000	once per month

For accumulated, previously untested biosolids, the Discharge shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

Test results shall be expressed in mg pollutant per kg biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for Organic-N, ammonium-N, and nitrate-N at the frequencies required above.

- 12.2. Prior to land application, the Permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR section 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.
- 12.3. For biosolids that are land applied or placed in a surface disposal site, the Permittee shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR section 503.33(b).
- 12.4. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with > 5 mgd influent flow shall

sample biosolids for pollutants listed under section 307(a) of the Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs.) Class 1 facilities and Federal Facilities with > 5 mgd influent flow shall test dioxins/dibenzofurans using a detection limit of < 1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.

- 12.5. The biosolids shall be tested annually or more frequently if necessary, to determine hazardousness in accordance with California Law.
- 12.6. If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site or shall certify that the placement of biosolids on the site will not contaminate an aquifer.
- 12.7. Biosolids placed in a municipal landfill shall be tested semi-annually by the Paint Filter Test (SW-846, Method 9095) to demonstrate that there are no free liquids.
13. The Permittee either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements:
  - 13.1. A reuse/disposal plan shall be submitted to USEPA Region IX Coordinator and, in the absence of other state or regional reporting requirements, to the state permitting agency, prior to the use or disposal of any biosolids from this facility to a new or previously unreported site. The plan shall be submitted by the land applier of the biosolids and shall include, a description and a topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a list of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed nitrogen loadings to be used for the crops, and a groundwater monitoring plan if one exists.
  - 13.2. If the Permittee's biosolids do not meet 40 CFR section 503.13 Table 3 metals concentration limits, the Permittee must require their land applier to contact the state permitting authority to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 40 CFR section 503.12(b)(2) have been applied to the site since July 20, 1993, and, if so, the cumulative amount of pollutants applied to date, and background concentration, if known. The Permittee shall then notify USEPA Region IX Coordinator of this information.
  - 13.3. For biosolids that are land applied, the Permittee shall notify the applier in writing of the nitrogen content of the biosolids, and the applier's requirements under 40 CFR part 503, including the requirements that the applier certify that the requirement to obtain information in Subpart A, and that the management practices, site restrictions, and any applicable vector attraction reduction requirements Subpart D have been met. The Permittee shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.
  - 13.4. If bulk biosolids are shipped to another State or to Indian Lands, the Permittee must send written notice prior to the initial application of bulk biosolids to the permitting

authorities in the receiving State or Indian Land (the USEPA Regional Office for the area and the State/Indian authorities).

- 13.5. Notification of 40 CFR part 503 non-compliance: The Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of any noncompliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.
14. The Permittee shall submit an annual biosolids report to USEPA Region IX Biosolids Coordinator and the Los Angeles Regional Water Quality Control Board by February 19 of each year for the period covering the previous calendar year. The report shall include:
  - 14.1. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
  - 14.2. Results of all pollutant monitoring required in the Monitoring Section above.
  - 14.3. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR sections 503.17 and 503.27.
  - 14.4. Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.
  - 14.5. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
  - 14.6. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other reuse/disposal methods not covered above, and volumes delivered to each.
15. The Discharger shall require all parties contracted to manage their biosolids to submit an annual biosolids report to USEPA Region IX Biosolids Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:
  - 15.1. Names and addresses of land appliers and surface disposal site operators, name, location (latitude/longitude), and size (hectares) of site(s), volumes applied/disposed (dry metric tons) and for land application, biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha), dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 40 CFR section 503.12(e)(2), management practices in section 503.14 and site restrictions in section 503.32(b)(5) have been met.

## **ATTACHMENT I – PRETREATMENT REPORTING REQUIREMENTS**

The Permittee is required to submit annual Pretreatment Program Compliance Reports (Report) to the Los Angeles Water Board and United States Environmental Protection Agency, Region 9 (USEPA). This Attachment outlines the minimum reporting requirements of the Report. If there is any conflict between requirements stated in this attachment and provisions stated in the Waste Discharge Requirements (WDR), those contained in the WDR will prevail.

### **1. PRETREATMENT PROGRAM**

- 1.1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403, including any subsequent regulatory revisions to part 403. Where part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Permittee shall complete the required actions within six months from the issuance date of this permit or the effective date of the part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines and other remedies by the USEPA or other appropriate parties, as provided in the Act. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the act.
- 1.2. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Permittee shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
- 1.3. The Permittee shall perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:
  - 1.3.1. Implement the necessary legal authorities as provided in 40 CFR part 403.8(f)(1);
  - 1.3.2. Enforce the pretreatment requirements under 40 CFR parts 403.5 and 403.6;
  - 1.3.3. Implement the programmatic functions as provided in 40 CFR part 403.8(f)(2);  
and
  - 1.3.4. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR part 403.8(f)(3).
- 1.4. The Permittee shall submit annually a report to USEPA Pacific Southwest Region, and the State describing its pretreatment activities over the previous year. In the event the Permittee is not in compliance with any conditions or requirements of this permit, then the Permittee shall also include the reasons for noncompliance and state how and when the Permittee shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on March 1 of each year. The report shall contain, but not be limited to, the following information:
  - 1.4.1. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the publicly-owned treatment works (POTW) influent and effluent for those pollutants USEPA has identified under section 307(a) of the Act which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only

for those pollutants detected in the full scan. The Permittee is not required to sample and analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this permit. The Permittee shall also provide any influent or effluent monitoring data for nonpriority pollutants which the Permittee believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR part 136;

- 1.4.2. A discussion of Upset, Interference or Pass Through incidents, if any, at the treatment plant which the Permittee knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through or interference;
- 1.4.3. An updated list of the Permittee's significant industrial users (SIUs) including their names and addresses, and a list of deletions, additions and SIU name changes keyed to the previously submitted list. The Permittee shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations;
- 1.4.4. The Permittee shall characterize the compliance status of each SIU by providing a list or table which includes the following information:
  - i. Name of the SIU;
  - ii. Category, if subject to federal categorical standards;
  - iii. The type of wastewater treatment or control processes in place;
  - iv. The number of samples taken by the POTW during the year;
  - v. The number of samples taken by the SIU during the year;
  - vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
  - vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;
  - viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR part 403.8(f)(2)(viii) at any time during the year; and
  - xi. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance.
- 1.4.5. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs;
- 1.4.6. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes

concerning the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;

1.4.7. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and

1.4.8. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR part 403.8(f)(2)(viii).

## **2. LOCAL LIMITS EVALUATION**

In accordance with 40 CFR part 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR part 403.5(c)(1) within 180 days of issuance or reissuance of the NPDES permit.

## **3. SIGNATORY REQUIREMENTS AND REPORT SUBMITTAL**

### **3.1. Signatory Requirements.**

The annual report must be signed by a principal executive officer, ranking elected official or other duly authorized employee if such employee is responsible for the overall operation of the POTW. Any person signing these reports must make the following certification [40 CFR part 403.6(a)(2)(ii)]:

*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.*

### **3.2. Report Submittal.**

The Annual Pretreatment Report shall be submitted electronically using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (<http://www.waterboards.ca.gov/ciwqs/index.html>). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

A copy of the Annual Report must be sent to USEPA electronically to the following address: [R9Pretreatment@epa.gov](mailto:R9Pretreatment@epa.gov).