

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

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**ORDER NO. R4-2023-XXXX
NPDES NUMBER. CA0063401**

**WASTE DISCHARGE REQUIREMENTS AND
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR WEST BASIN MUNICIPAL WATER DISTRICT
EDWARD C. LITTLE WATER RECYCLING FACILITY,
DISCHARGE TO THE PACIFIC OCEAN VIA THE HYPERION WATER
RECLAMATION PLANT (HYPERION WRP) OUTFALL**

The following Discharger is subject to state waste discharge requirements (WDRs) and federal National Pollutant Discharge Elimination System (NPDES) permit requirements, as set forth in this Order:

Table 1. Discharger Information

Discharger	West Basin Municipal Water District (or Permittee)
Name of Facility	Edward C. Little Water Recycling Facility (ECLWRF)
Facility Address	1935 South Hughes Way El Segundo, CA 90245 Los Angeles County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
Hyperion WRP discharge pipe between the gravity valve and the Ocean outfall diffuser	Untreated brine waste (from reverse osmosis treatment)	33.920949°N	118.429950°W	Hyperion WRP secondary-treated effluent

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001 (Hyperion WRP 5-Mile Outfall, start of Y-shaped diffuser)	Untreated brine waste commingled with Hyperion WRP secondary treated wastewater	33.91197°N	118.52145°W	Pacific Ocean

Table 3. Administrative Information for State Order

This Order was adopted on:	November 16, 2023
This Order shall become effective on:	February 1, 2024
This Order shall expire on:	January 31, 2029
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date.
The U.S. Environmental Protection Agency (USEPA) Region 9 and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Susana Arredondo, 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.

Susana Arredondo, Executive Officer

Table 4. Administrative Information for Federal Permit

This Permit was issued on:	Date of signature below
This Permit shall become effective on:	February 1, 2024
This Permit shall expire on:	January 31, 2029
The Discharger shall file a new application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the permit expiration date.
The U.S. Environmental Protection Agency (USEPA) Region 9 and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Tom?s Torres, Water Division Director, do hereby certify that this Permit with all attachments is a full, true, and correct copy of the Permit issued by the United States Environmental Protection Agency Region 9, on the date of signature below.

Tom?s Torres, Water Division Director

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1. FACILITY INFORMATION

Information describing the Edward C. Little Water Recycling Facility (Facility, ECLWRF) is summarized on the cover page and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) and the United States Environmental Protection Agency (USEPA) Region 9, find:

- 2.1. **Legal Authorities.** This Order/Permit 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/Permit also serves as a National Pollutant Discharge Elimination System (NPDES) permit and is issued pursuant to section 402 of the federal Clean Water Act (CWA) (Public Law 92-500, as amended, 33 USC. 1251 et seq.) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the CWC (commencing with section 13370). Although Discharge Point 001 ("Hyperion WRP 5-Mile Outfall") is beyond the limit of State-regulated ocean waters, effluent plume migration into State waters warrants joint regulation of the discharge by USEPA and the Los Angeles Water Board. Therefore, pursuant to 40 CFR § 124.4(c)(2), this Order/Permit shall serve as a joint consolidated State and federal NPDES Permit authorizing the Permittee to discharge into waters of the United States at the discharge locations described in Table 2, subject to the limitations, conditions and all other requirements set forth herein (hereinafter "Order/Permit"), with the exception of the provisions in subsection 4.3, which are state law requirements only (as described in 2.3 below). The Permit is both a federal permit and a state permit by operation of law.
- 2.2. **Background and Rationale for Requirements.** The Los Angeles Water Board and USEPA Region 9 developed the requirements in this Order/Permit 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/Permit, is hereby incorporated into and constitutes Findings for this Order/Permit. Attachments A through E, G, and H are also incorporated into this Order/Permit.
- 2.3. **Provisions and Requirements Implementing State Law.** The provisions/requirements implementing state law 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 and USEPA Region 9 have notified the West Basin Municipal Water District (West Basin) and interested agencies and persons of its intent to prescribe WDRs and NPDES permit requirements 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 and USEPA Region 9, in a public meeting, heard and considered all comments pertaining to this Order/Permit. Details of the public meeting are provided in the Fact Sheet.
- 2.6. **Federal Permit Renewal Contingency.** The Permittee's federal NPDES permit renewal is contingent upon:
- a. Determination by the US Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) that the discharge is consistent with the federal Endangered Species Act (ESA) of 1973, as amended (16 US Code (USC) section 1531 et seq.);
 - b. Determination by the California Coastal Commission (CCC) that the proposed discharge is consistent with the Coastal Zone Management Act (CZMA) of 1972, as amended (16 USC. section 1451 et seq.); and
 - c. The Los Angeles Water Board's certification/concurrence that the discharge will comply with applicable State water quality standards.

THEREFORE, IT IS HEREBY ORDERED, that this Order/Permit supersedes Order Number R4-2018-0089 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 Permittee shall comply with the requirements in this Order/Permit. This action in no way prevents the Los Angeles Water Board or USEPA Region 9 from taking enforcement action for past violations of the previous Order/Permit.

3. DISCHARGE PROHIBITIONS

- 3.1. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
- 3.2. Discharge to designated Areas of Special Biological Significance is prohibited.
- 3.3. Pipeline discharge of sludge to the ocean is prohibited by federal law. The discharge of municipal and industrial waste sludge directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited by the California Ocean Plan. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.

- 3.4. The bypassing of untreated wastes containing concentrations of pollutants in excess of those of Table 3 or Table 4 of the 2019 Ocean Plan to the ocean is prohibited.
- 3.5. 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.
- 3.6. The discharge of waste that is not brine waste is prohibited.
- 3.7. The discharge of brine waste at any location different from Discharge Point 001 is prohibited unless there is a planned capital improvement project and there is no other feasible alternative. Projects warranting a diversion to an alternate discharge location will be considered on a case-by-case basis and must be approved with conditions by the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director prior to diverting flow.
- 3.8. Waste discharged from Discharge Point 001 shall be limited to a maximum of 5.2 million gallons per day (MGD) of brine waste.
- 3.9. 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.
- 3.10. The Discharger shall not cause degradation of any water body, except as consistent with State Water Resources Control Board (State Water Board) Resolution No. 68-16.
- 3.11. 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 Water Code.
- 3.12. The discharge of any toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, animal, plant, or aquatic life is prohibited.

4. EFFLUENT LIMITATIONS, PERFORMANCE GOALS, AND DISCHARGE SPECIFICATIONS

4.1. Effluent Limitations – Discharge Points 001

4.1.1. Final Effluent Limitations – Discharge Point 001

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

Table 5. Final Effluent Limitations for Discharge Point 001 (Hyperion WRP 5-Mile Outfall)

Parameter	Units	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	6-month Median Limit	Instantaneous Maximum Effluent Limit	Annual Average Effluent Limit	Notes
Total Suspended Solids (TSS)	mg/L	60	--	--	--	--	--	a
TSS	lbs/day	2,600	--	--		--	--	a, b
Oil and Grease (O&G)	mg/L	25	40	--	--	75	--	a, c
O&G	lbs/day	1,080	1,730	--	--	3,250	--	a, b, c
Settleable Solids	mL/L	1.0	1.5	--	--	3.0	--	a, c
Turbidity	NTU	75	100	--	--	225	--	a, c
Ammonia (as N)	mg/L	--	--	7,500	282	23,330	--	a, c, d, e
Ammonia (as N)	lbs/day	--	--	325,000	12,000	1,000,000	--	a, b, c, e
Chlorine Residual	µg/L	--	--	32,000	8,000	239,000	--	a, c, d, e
Chlorine Residual	lbs/day	--	--	1,400	350	10,400	--	a, b, c, e
DDT	g/yr	--	--	--	--	--	10.1*Q	f, g
Polychlorinated Biphenyls (PCBs) as Aroclors	g/yr	--	--	--	--	--	0.271*Q	f, g

Footnotes for Table 5:

- a. For intermittent discharges, the daily value used to calculate the average monthly or 6-month median values shall be considered to equal zero for days on which no discharge occurred.
- b. The mass emission rates are calculated using 5.2 MGD, consistent with the water quality-based limits in the previous permit: lbs/day = 0.00834 x Ce (effluent concentration in µg/L) x Q (flow rate in MGD).
- c. The instantaneous maximum effluent limitations shall apply to grab samples.
- d. The minimum dilution ratio used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Point 001 is based on two mixing events, one as the effluent mixes with Hyperion WRP effluent in the 5-mile pipeline (43:1) and another where the combined effluent is discharged to the ocean (84:1), for a total dilution of (43*(84+1)) = 3,655 parts seawater and effluent to one part brine. The ocean mixing dilution ratio applied to ammonia, total residual chlorine, and chronic toxicity is 96:1 for a total dilution of (43*(96+1)) = 4,171 parts seawater and effluent to one part brine.
- e. The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples.

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- f. See section 8 of this Order/Permit and Attachment A for definition of terms.
- g. The *Santa Monica Bay Total Maximum Daily Load for DDTs and PCBs* (Santa Monica Bay TMDL for DDTs and PCBs) established by USEPA on March 26, 2012, provides that the total mass load of DDT and PCB from the County Sanitation Districts of Los Angeles County Joint Water Pollution Control Plant, Hyperion WRP, the ECLWRF, and West Basin’s Carson Regional Water Recycling Facility shall not be more than 14,567 g/yr for DDT and 351 g/yr for PCB. The Discharger is deemed in compliance with these group water quality-based effluent limitations (WQBELs) for DDT and PCBs if it is in compliance with the individual mass-based WQBELs for DDT and PCBs in Table 5 Effluent Limitations. The Santa Monica Bay TMDL for DDTs and PCBs further states that the waste load allocation (WLA) and the final effluent limitation for ECLWRF are as follows:

$$\text{ECLWRF WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to ECLWRF}}$$

Where:

$C_{\text{Hyperion WRP}}$ is the concentration-based WLA for the Hyperion WRP effluent

$Q_{\text{Hyperion WRP to ECLWRF}}$ is the flow diverted from Hyperion WRP to ECLWRF

For DDTs: $\text{ECLWRF WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to ECLWRF}} = 10.1 * Q_{\text{Hyperion WRP to ECLWRF}}$

For PCBs: $\text{ECLWRF WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to ECLWRF}} = 0.271 * Q_{\text{Hyperion WRP to ECLWRF}}$

End of Footnotes for Table 5

4.1.2. Other Final Effluent Limitations – Discharge Point 001

- a. Temperature:** The temperature of wastes discharged shall not exceed 100°F.
- b. pH:** The effluent values for pH shall be maintained within the limits of 6.0 standard units and 9.0 standard units at all times.
- c. Radioactivity:** Not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 1, Section 30253 of the California Code of Regulations. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.
- d. Waste discharged to the ocean must be essentially free of:**
 - i. Material that is floatable or will become floatable upon discharge.
 - ii. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
 - iii. Substances that will accumulate to toxic levels in marine waters, sediments or biota.
 - iv. Substances that significantly decrease the natural light to benthic communities and other marine life.
 - v. Materials that result in aesthetically undesirable discoloration of the ocean surface.
- e. The Permittee shall ensure that bacterial concentrations in the effluent discharged from Discharge Point 001 do not cause or contribute to exceedances at shoreline monitoring points of bacteriological objectives contained in Chapter 3 of the Water Quality Control Plan – Los Angeles Region (Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties; hereinafter, Basin Plan) during summer dry weather, winter dry weather, and wet weather, as specified in section 7-4 of the Basin Plan.**

4.1.3. Interim Effluent Limitations –Not Applicable

4.2. Land Discharge Specifications –Not Applicable

4.3. Recycling Specifications

The Edward C. Little Water Recycling Facility recycles water from the Hyperion Water Reclamation Plant that would otherwise be discharged to the ocean. Recycling specifications are not established within this Order. West Basin produces recycled water under two separate Orders: Order No. R4-2006-0069 for groundwater injection and Order 01-043 for nonpotable uses such as irrigation and industrial applications.

5. RECEIVING WATER LIMITATIONS

The Permittee shall not cause a violation of the following.

5.1. Surface Water Limitations

Compliance with these receiving water limitations shall be determined by samples collected at stations outside the zone of initial dilution and identified in the Hyperion WRP NPDES Order No. R4-2023-0033.

5.1.1. Bacterial Characteristics

a. USEPA Primary Recreation Criteria in Federal Waters

Ocean waters beyond the outer limit of the territorial sea shall not exceed the following 304(a)(1) criteria for *Enterococcus* density beyond the zone of initial dilution in areas where primary contact recreation, as defined in USEPA guidance, occurs. USEPA describes the “primary contact recreation” use as protective when the potential for ingestion of, or immersion in, water is likely. Activities usually include swimming, water-skiing, skin-diving, surfing, and other activities likely to result in immersion. (Water Quality Standards Handbook, EPA-823-B-12-002, 2012, p. 2.)

30-day Geometric Mean (per 100 mL): 30

Statistical Threshold Value (per 100 mL): 110.

b. State/Regional Water Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Los Angeles Water Board or USEPA (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

i. **Fecal coliform**: A 30-day geometric mean (GM) of fecal coliform density not to exceed 200 per 100 milliliters (mL), calculated based on the five most recent samples from each site, and a single sample maximum (SSM) not to exceed 400 per 100 mL.

ii. **Enterococci**: A six-week rolling GM of *Enterococci* not to exceed 30 colony forming units (cfu) or most probable number (MPN) per 100 mL, calculated weekly, and a statistical threshold value (STV) of 110 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner. USEPA recommends using USEPA Method 1600 or other equivalent method to measure culturable *Enterococci*.

c. The Initial Dilution Zone for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards.

Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

d. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Los Angeles Water Board and USEPA, the following bacterial objectives shall be maintained throughout the water column: The median total coliform density shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL.

5.1.2. Physical Characteristics

The waste discharged shall not:

- a. result in floating particulates and oil and grease to be visible;
- b. cause aesthetically undesirable discoloration on the ocean surface;
- c. significantly reduce the transmittance of natural light at any point outside the initial dilution zone;
- d. change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded, and
- e. cause trash to be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

5.1.3. Chemical Characteristics

The waste discharged shall not:

- a. cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste;
- b. change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;
- c. cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;
- d. cause concentration of substances (as set forth in Chapter II, Table 3 of the Ocean Plan) in marine sediments to be increased to levels that would degrade indigenous biota;
- e. cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life;

- f. contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota;
- g. cause total chlorine residual to persist in the receiving water at any concentration that causes impairment of beneficial uses;
- h. produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life; and
- i. contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses.

5.1.4. Biological Characteristics

The waste discharged shall not:

- a. degrade marine communities, including vertebrate, invertebrate, and plant species;
- b. alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption;
- c. cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health; and
- d. contain substances that result in biochemical oxygen demand that adversely affects the beneficial uses of the receiving water.

5.1.5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

5.2. Groundwater Limitations – Not Applicable

6. PROVISIONS

6.1. Standard Provisions

- 6.1.1. The Permittee shall comply with all Standard Provisions included in Attachment D of this Order/Permit.
- 6.1.2. **Los Angeles Water Board Standard Provisions.** The Permittee shall comply with the following provisions. If there is any conflict, duplication, or overlap between provisions specified by this Order/Permit, 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 (such as failure to implement appropriate best management practices) and/or spills, bypass, or overflow of sewage or sludge, as determined by the Los Angeles Water Board and USEPA Region 9, 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 1-percent chance of occurring in a 24-hour period in an any given year.
 - d. Collection, treatment, and disposal systems shall be operated in a manner that precludes 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 Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director.
 - f. The provisions of this Order/Permit are severable. If any provision of this Order/Permit or the application of any provision of this Order/Permit is found invalid, the remainder of this Order/Permit shall not be affected.
 - g. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.
 - h. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject to under section 311 of the CWA, related to oil and hazardous substances liability.
 - i. Discharge of wastes to any point other than specifically described in this Order/Permit is prohibited.
 - j. The Permittee 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. 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.
- m. A copy of these waste discharge specifications shall be maintained at the discharge Facility and be available at all times to operating personnel.
- n. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- o. The Permittee shall file with the Los Angeles Water Board and USEPA Region 9 a Report of Waste Discharge at least 120 days before making any proposed change in the character, location, or volume of the discharge.
- p. The Permittee shall 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 the NPDES permit(s) issued by the Los Angeles Water Board and/or USEPA Region 9 to local agencies.
- q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Permittee shall notify the Los Angeles Water Board and USEPA of such change and shall notify the succeeding owner or operator of the existence of this Order/Permit by letter, a copy of which shall be forwarded to the Los Angeles Water Board and USEPA Region 9, 30 days prior to taking effect.
- r. 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 applicable statutes and regulations or of any provisions of this Order/Permit 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.

- s. CWC section 13387 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/Permit, 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/Permit is subject to a fine of not more than \$25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than \$25,000 per day of violation, or by imprisonment of not more than four years, or by both.
- t. 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/Permit.
- u. The Permittee shall notify the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director, 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.
- v. Failure to comply with provisions or requirements of this Order/Permit, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- w. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order/Permit that may endanger health or the environment, the Permittee shall notify the Manager of the Watershed Regulatory Section at the Los Angeles Water Board by telephone (213) 576-6616, or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Los Angeles Water Board within five days, unless the Los

Angeles Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via [email](mailto:losangeles@waterboards.ca.gov) with reference to CI-7449 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

- x. 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 WDRs 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 § 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.”
- y. 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 four or more times 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 violations within that time period.
- z. 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.
- aa. Violation of any of the provisions of this Order/Permit may subject the Permittee to any of the penalties described herein or in Attachment D of this Order/Permit, 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.

6.1.3. The Permittee shall comply with the following USEPA Region 9 Standard Conditions:

- a. The following condition has been established to enforce applicable requirements of the Resource Conservation and Recovery Act. POTWs may not receive hazardous waste by truck, rail, or dedicated pipe except as provided under 40 CFR § 270.

Hazardous wastes are defined at 40 CFR § 261 and include any mixture containing any waste listed under 40 CFR § 261.31 through § 261.33. The Domestic Sewage Exclusion (40 CFR § 261.4) applies only to wastes mixed with domestic sewage in a sewer leading to a POTW and not to mixtures of hazardous wastes and sewage or septage delivered to the treatment plant by truck.

- b. **Transfers by Modification:** Except as provided in 40 CFR § 122.61(b), this Permit may be transferred by the Permittee to a new owner or operator only if the Permit has been modified or revoked and reissued (under 40 CFR § 122.62(b)(2)), or a minor modification made (under 40 CFR § 122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under the CWA. (40 CFR § 122.61(a).)
- c. **Automatic Transfers:** As an alternative to transfers under 40 CFR § 122.61(a), this Permit may be automatically transferred to a new permittee if: the current permittee notifies the Water Division Director at least 30 days in advance of the proposed transfer date; the notice includes a written agreement between the Discharger and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and the Water Division Director does not notify the Discharger and the proposed new permittee of his/her intent to modify or revoke and reissue the Permit. A modification under this paragraph may also be a minor modification under 40 CFR § 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement between the Discharger and the new permittee. (40 CFR § 122.61(b).)
- d. **Minor Modification of Permits:** Upon the consent of the Permittee, the Water Division Director may modify the Permit to make the corrections or allowances for changes in the permitted activity listed under 40 CFR § 122.63(a) through (g), without following the procedures of 40 CFR § 124. Any permit modification not processed as a minor modification under 40 CFR § 122.63 must be made for cause and with 40 CFR § 124 draft permit and public notice as required in 40 CFR § 122.62. (40 CFR § 122.63.)

- e. **Termination of Permits:** The causes for terminating a permit during its term, or for denying a permit renewal application are found at 40 CFR § 122.64(a)(1) through (4). (40 CFR § 122.64.)
- f. **Availability of Reports:** Except for data determined to be confidential under 40 CFR § 2, all reports prepared in accordance with the terms of this Order/Permit shall be available for public inspection at the offices of the Los Angeles Water Board and USEPA. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential. (Pursuant to CWA section 308.)
- g. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters. (Pursuant to CWA section 301.)
- h. **Severability:** The provisions of this Order/Permit are severable, and if any provision of this Order/Permit or the application of any provision of this Order/Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order/Permit shall not be affected thereby. (Pursuant to CWA section 512.)
- i. **Civil and Criminal Liability:** Except as provided in standard conditions on Bypass and Upset, nothing in this Order/Permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance. (Pursuant to CWA section 309.)
- j. **Oil and Hazardous Substances Liability:** Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject under CWA section 311.
- k. **State or Tribal Law:** Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State or Tribal law or regulation under authority preserved by CWA section 510.

6.2. Monitoring and Reporting Program (MRP) Requirements

The Permittee shall comply with the MRP and future revisions thereto, in Attachment E of this Order/Permit.

6.3. Special Provisions

6.3.1. Reopener Provisions

- a. This Order/Permit may be reopened and modified to incorporate new limits based on future reasonable potential analyses to be conducted

- based on on-going monitoring data collected by the Permittee and evaluated by the Los Angeles Water Board and USEPA Region 9.
- b. This Order/Permit may be reopened and modified to incorporate new mass emission rates based on an increase in ECLWRF design capacity of 5.2 MGD provided that the Permittee requests and conducts an antidegradation analysis to demonstrate that the change is consistent with the state and federal antidegradation policies.
 - c. This Order/Permit may be modified, in accordance with the provisions set forth in 40 CFR § 122 to 124, to include new minimum levels (MLs).
 - d. This Order/Permit may be reopened and modified to revise effluent limitations as a result of future Basin Plan amendments or the adoption or revision of a Total Maximum Daily Load (TMDL) for the Santa Monica Bay Watershed Management Area.
 - e. The Los Angeles Water Board or USEPA Region 9 may modify or revoke and reissue this Order/Permit if present or future investigations demonstrate that the discharge(s) governed by this Order/Permit will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
 - f. This Order/Permit may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR § 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/Permit, 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/Permit adoption and issuance. The filing of a request by the Discharger for an Order/Permit modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order/Permit.
 - g. This Order/Permit may be modified, or revoked and reissued, based on the results of Magnuson-Stevens Fishery Conservation and Management Act and/or ESA section 7 consultation(s) with the NMFS and/or the USFWS.
 - h. This Order/Permit may be reopened and modified to incorporate conforming monitoring requirements and schedule dates for implementation of the Comprehensive Monitoring Program for Santa Monica Bay (Commission with Santa Monica Bay National Estuary Program, April 2021).
 - i. This Order/Permit 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/Permit;
- ii. Obtaining this Order/Permit 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.
- j. 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/Permit, the Los Angeles Water Board and USEPA Region 9 may institute proceedings under these regulations to modify or revoke and reissue the Order/Permit to conform to the toxic effluent standard or prohibition.
- k. 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 and USEPA Region 9 will modify this Order/Permit in accordance with such standards.
- l. This Order/Permit will be reopened and modified to the extent necessary, to be consistent with new or revised policies, a new or revised state-wide plan, new laws, or new regulations.

6.3.2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Flame Retardant Special Study

The Permittee shall propose a special study that evaluates organophosphate flame retardants (TCEP, TCPP, and TDCPP combined, see Table E-4), which are flame retardants and chemicals of emerging concern, in the effluent concentration and mass loadings to the receiving water. The Permittee shall submit a Special Study Work Plan for approval by the Los Angeles Water Board Executive Officer and the USEPA Water Division Director within one year of the effective date of this Order and submit the special study report no later than two years before the permit expires. The Discharger may complete the study independent of the City of Los Angeles. The study shall include the following:

- i. Composite sampling of ECLWRF brine on at least two occasions,
- ii. Description of the analytical technique used to characterize the flame retardants and a discussion of its advantages and limitations.

- iii. Identification of the flow from ECLWRF and the flow from Hyperion WRP on the sample days, with a calculation of the mass discharged from ECLWRF.

b. Toxicity Reduction Requirements

The Permittee shall prepare and submit a copy of the Permittee's initial investigation Toxicity Reduction Evaluation (TRE) work plan in accordance with MRP section 5.6.

c. Treatment Plant Capacity – Not Applicable

6.3.3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP)

The Discharger shall enroll in the California State Water Resources Control Board (State Water Board) Water Quality Order Number 2014-0057-DWQ amended by Order 2015-0122-DWQ and Order 2018-0028-DWQ, NPDES Number CAS000001, *General Permit for Storm Water Discharges Associated with Industrial Activities*.

b. Spill Clean-up Contingency Plan (SCCP)

Within 90 days of the effective date of this Order/Permit, the Permittee is required to submit an SCCP. The SCCP shall describe the activities and protocols to address the clean-up of spills, overflows, and bypasses of wastewater from the Permittee's collection system or treatment facilities. At a minimum, the SCCP shall include sections on spill clean-up and containment measures, public notifications, monitoring, nuisance and odor control measures, and the procedures to be carried out if floatable material is visible on the water surface near the discharge point or has been washed ashore. The Permittee shall review and amend the plan as appropriate after each spill from the Facility or the pipeline to the Hyperion WRP. The Permittee 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 the MRP describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported ML and Method Detection Limit (MDL) are provided in the Ocean Plan. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Permittee shall develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as DNQ and when the effluent limitation is less than the MDL; sample results from analytical methods more sensitive than those methods required by this Order/Permit; presence of whole effluent toxicity; health advisories

for fish consumption; beach posting by the local health officer per California Code of Regulations, Title 17, section 7958 et seq.; or, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either of the following is true:

- i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or,
- ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in the MRP.

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 and USEPA Region 9 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 and USEPA Region 9:

- i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable 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 pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Los Angeles Water Board and USEPA Region 9 including:
 - 1) All PMP monitoring results for the previous year;
 - 2) A list of potential sources of the reportable pollutant(s);

- 3) A summary of all actions undertaken pursuant to the control strategy; and 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/Permit shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR, title 23, division 3, chapter 26 (CWC sections 13625 – 13633). All treatment plant operators shall also be trained in emergency response.
- b. **Climate Change Effects Vulnerability Assessment and Mitigation Plan:** The Permittee shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfires, or other climate-related changes. The Permittee 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. The permittee shall project upgrades to existing assets or new infrastructure projects, and associated costs, necessary to meet desired levels of service. Climate change research also indicates the overarching driver of climate change is increased atmospheric carbon dioxide from human activity. The increased carbon dioxide emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges, lead to more erratic rainfall and local weather patterns, trigger a gradual warming of freshwater and ocean temperatures, and trigger changes to ocean water chemistry. As such, the Climate Change Plan shall also identify steps being taken or planned to address greenhouse gas emissions attributable to wastewater treatment plants, solids handling, and effluent discharge processes. For facilities that discharge to the ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due 12 months after the effective date of this Order/Permit.
- c. **Routine Maintenance and Operational Testing for Emergency Infrastructure/Equipment:** The Permittee shall perform monthly maintenance and operational testing for all emergency infrastructure and equipment at the facility, including but not limited to any bypass gate/weir in the headworks, alarm systems, backup pumps, standby power generators, and other critical emergency pump station

components. The Permittee shall update the Operation and Maintenance Plan to include monthly maintenance and operational testing of emergency infrastructure and equipment, and shall keep the records of all operational testing for emergency systems, repairs, and modifications.

6.3.5. Special Provisions for Biosolids

a. Sludge Disposal Requirements – Refer to Attachment H

- i. The treatment, use, and disposal of sewage sludge shall be carried out in the manner found to have the least adverse impact on the total natural and human environment.
- ii. All sewage sludge (including 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 § 503. These requirements are enforceable by USEPA Region 9.
- iii. The Permittee is separately required to comply with the requirements in State Water Board Water Quality Order Number 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 (General Order)*, for those sites receiving the Permittee's biosolids which a regional water board has placed under this general order, and with the requirements in individual WDRs issued by a regional water board for sites receiving the Permittee's biosolids.
- iv. The Permittee shall separately comply, if applicable, with WDRs issued by other regional water boards to which jurisdiction the biosolids are transported and applied.
- v. The Permittee shall ensure that haulers transporting sludge for treatment, storage, use, or disposal take all necessary measures to keep the sludge contained. The Permittee shall maintain and have haulers adhere to a spill clean-up plan. Any spills shall be reported to USEPA Region 9 and the Los Angeles Water Board or the state agency with jurisdiction over the location in which the spill occurred. All trucks hauling sludge shall be thoroughly washed after unloading at the field or at the receiving facility.

6.3.6. Spills or Unauthorized Discharges (more than 50,000 gallons)

The Permittee shall immediately (but no later than two hours) notify the Los Angeles Water Board and County Health or the local health department, if applicable, by telephone or electronic means of an unauthorized discharge of more than fifty thousand (>50,000) gallons of water or other waste of any volume that causes, or probably will cause, a discharge to any waters of the state or odors, vectors, and other

nuisances of sewage origin beyond the limits of the treatment plan site. The State Water Resources Control Board, Division of Drinking Water (DDW) must be contacted if a drinking water source is threatened by the spill. If the environment is endangered by the spill, the California State Department of Fish and Wildlife must be contacted. Written confirmation must be provided electronically (e.g., email or fax) to all agencies within three (3) business days from the date of notification. The phone number for reporting spills to the Los Angeles Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of spills to the Los Angeles Water Board are (213) 305-2284 and (213) 305-2253.

Information provided shall include the date and time the spill began and ended, the location of the spill, if the spill entered a storm drain or receiving water, the estimated volume of the spill or flow if the spill is ongoing, the estimated time of repair, the cause of the spill, the agencies involved with repair and clean-up, and corrective actions taken or plans for corrective actions.

6.3.7. Other Special Provisions – Not Applicable

6.3.8. Compliance Schedules – Not Applicable

7. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section 4 of this Order/Permit 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/Permit. For purposes of reporting and administrative enforcement by the Regional Water Board, State Water Board, or USEPA, the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the corresponding effluent limitation and greater than or equal to the reporting level (RL) or ML.

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, the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two 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, though the Permittee may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month) in cases where discretionary administrative civil liabilities are appropriate. If only a single sample is collected during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee may be considered out of compliance for that calendar month. For those average monthly effluent limitations that are based on the 6-month median water quality objectives in the Ocean Plan, the daily value used to calculate these average monthly values for intermittent discharges, shall be considered to equal zero for days on which no discharge occurred. The Permittee 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 collected, 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 Permittee 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 Permittee 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, a potential violation will be flagged and the Permittee will be considered out of compliance for each day of that week for that parameter,

resulting in 7 days of noncompliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is collected during the calendar week and the analytical result for that sample exceeds the AWEL, the Permittee will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is collected, 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 24-hour composite sample exceeds the MDEL for a given parameter, a potential violation will be flagged, and the Permittee will be considered out of compliance for that parameter for that one day only within the reporting period. 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 Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected 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 Permittee will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected 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 Permittee 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 collected. If only a single sample is collected during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Permittee will be considered out of compliance for the 180-day period. For any 180-period during which no sample is collected, no compliance determination can be made for the six-month median effluent limitation.

7.9. Annual Average Effluent Limitation

If the annual average of monthly discharges over a calendar year exceeds the annual average effluent limitation for a given parameter, a potential violation will be flagged, and the Permittee will be considered out of compliance for each month of that year for that parameter. However, a potential violation of the annual average effluent limitation will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is collected over a calendar year, no compliance determination can be made for that year with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

7.10. 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.

7.11. Compliance with Single Constituent Effluent Limitations

Permittees may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section 7.2 "Multiple Sample Data" above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the ML or RL.

7.12. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents

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

7.13. Compliance with TCDD Equivalents

TCDD equivalents shall be monitored and calculated using the following formula, where the MLs, and toxicity equivalency factors (TEFs) are as provided in the table below. The Permittee shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the

Permittee shall set congener concentrations below the minimum levels to zero.
USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin Concentration} = \sum_{i=1}^{17} (TEQ_i) = \sum_{i=1}^{17} (C_i)(TEF_i)$$

where:

C_i = individual concentration of a dioxin or furan congener

TEF_i = individual TEF for a congener

MLs and TEFs

Congeners	MLs (pg/L)	TEFs
2,3,7,8-TetraCDD	10	1.0
1,2,3,7,8-PentaCDD	50	0.5
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	0.001
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
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-HeptaCDF	50	0.01
1,2,3,4,7,8,9-HeptaCDF	50	0.01
OctaCDF	100	0.001

7.14. Mass Emission Rate

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

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

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

in which 'N' is the number of samples analyzed in any calendar day. 'Q_i' and 'C_i' 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 collected on any calendar day. If a composite sample is taken, 'C_i' is the concentration measured in the composite sample and 'Q_i' 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. 'Q_i' and 'C_i' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Q_t' is the total flow rate of the combined waste streams.

7.15. Bacterial Standards and Analysis

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

$$GM = \sqrt[n]{(x_1)(x_2)(x_3) \cdots (x_n)}$$

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

- 7.15.2. The STV for the bacteria water quality objective is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.
- 7.15.3. 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.
- 7.15.4. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Los Angeles Water Board Executive Officer and/or the USEPA Region 9 Water Division Director.

7.15.5. Detection methods used for *Enterococcus* and shall be those presented in Table 1A of 40 CFR § 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 Executive Officer and/or the USEPA Region 9 Water Division Director to be appropriate.

7.16. 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 Permittee's liability in accordance with the following conditions:

- 7.16.1. 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.
- 7.16.2. A Permittee may assert SOU to limit liability only for those violations which the Permittee submitted notice of the upset as required in Provision 5.5.2.b of Attachment D – Standard Provisions.
- 7.16.3. 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 Permittees 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).
- 7.16.4. 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 Permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)

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

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

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

Areas of Special Biological Significance (ASBS)

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

Average Monthly Effluent Limitation (AMEL)

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

Average Weekly Effluent Limitation (AWEL)

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

Bioaccumulative

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

Biosolids

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

Carcinogenic

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

Chlordane

The sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Coefficient of Variation (CV)

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

Composite Sample, 24-hour

For flow rate measurements, the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurements:

- a. No fewer than eight individual sample portions taken at equal time intervals for 24 hours. The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,
- b. No fewer than eight individual sample portions taken of equal time volume collected over a 24-hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

The compositing period shall equal 24 hours.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

Daily Discharge

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

The daily discharge may be determined by the analytical results of a composite sample collected 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 collected over the course of the day.

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

DDT

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

Degrade

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

Detected, but Not Quantified (DNQ)

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes

The sum of 1,2- and 1,3-dichlorobenzene.

Dilution Credit

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

Downstream Ocean Waters

Waters downstream with respect to ocean currents.

Dredged Material

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

Enclosed Bays

Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay.

Endosulfan

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

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 and Coastal Lagoons

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

Grab Sample

An individual sample collected during a period not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

Halomethanes

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

Hexachlorocyclohexane (HCH)

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

Initial Dilution

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

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

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

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

In-stream Waste Concentration (IWC)

The concentration of a toxicant or the parameter toxicity in the receiving water after mixing.

Kelp Beds

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

Mariculture

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

Material

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

Maximum Daily Effluent Limitation (MDEL)

The highest allowable daily discharge of a pollutant.

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)

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

Minimum Level (ML)

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

Natural Light

Reduction of natural light may be determined by the Los Angeles Water Board and USEPA by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Los Angeles Water Board and USEPA.

Not Detected (ND)

Those sample results less than the laboratory's MDL.

Ocean Waters

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

PAHs (polynuclear aromatic hydrocarbons)

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

PCBs (polychlorinated biphenyls) 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 congener 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

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

PFAS

Per- and Polyfluoroalkyl Substances (PFAS) are a family of more than 5,000 man-made chemicals that are mobile, persistent, and bioaccumulative. They are resistant to degradation in the environment and when degradation occurs, it often results in the formation of other PFAS compounds. Perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) are two types of PFAS.

Phenols (chlorinated)

The sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

Phenols (non-chlorinated)

The sum of 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and phenol.

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 pollutants 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 and USEPA may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention

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 CWC 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), Los Angeles Water, or USEPA.

Publicly Owned Treatment Works

A treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality which has jurisdiction over the Indirect Discharges to and the discharges from such treatment works. (40 CFR § 403.3(q).)

Reported Minimum Level

The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order/Permit, including an additional factor if applicable as discussed herein. The MLs included in this Order/Permit correspond to approved analytical methods for reporting a sample result that are selected by the Los Angeles Water Board and USEPA either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with

section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML.

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.

Shellfish

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

Significant Difference

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

Six-Month Median Effluent Limitation

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

Standard Deviation (σ)

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

$$\sigma = \sqrt{\frac{\sum (x - \mu)^2}{n - 1}}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

State Water Quality Protection Areas (SWQPAs)

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

Statistical Threshold Value (STV)

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

TCDD Equivalents

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

Congeners	MLs (pg/L)	TEFs
2,3,7,8-TetraCDD	10	1.0
1,2,3,7,8-PentaCDD	50	0.5
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	0.001
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
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-HeptaCDF	50	0.01
1,2,3,4,7,8,9-HeptaCDF	50	0.01
OctaCDF	100	0.001

Test of Significant Toxicity (TST)

A statistical approach used to analyze toxicity test data. The TST incorporates a restated null hypothesis, Welch's t-test, and the biological effect thresholds for chronic and acute toxicity.

Total Nitrogen

Shall mean the sum of nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, and total organic nitrogen.

Toxicity Identification Evaluation (TIE)

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)

A study conducted in a stepwise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best

management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate.

Waste

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

Water Recycling

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

The map displays the coastal area around the Hyperion Water Reclamation Plant. Key features include:

- Discharge Structure: 5-Mile Outfall**: A blue dashed line extending from the plant towards the Pacific Ocean.
- ECL Discharge Point 001**: Located at coordinates 33 55 09.59N, 118 31 42.53W.
- Hyperion Treatment Pump Station**: Located at coordinates 33 55 31.00N, 118 25 56.00W.
- 1 Mile Emergency Bypass Outfall**: A blue dashed line extending from the pump station towards the ocean.
- ECL Discharge Point 002**: Located at coordinates 33 55 06.00N, 118 26 51.00W.
- Brine Pipeline End**: Located at coordinates 33 55 30.98N, 118 25 55.96W.
- Sample Point EFF-01**: Located near the Brine Pipeline End.
- Edward C. Little (ECL) Water Recycling Facility**: Located inland from the plant.
- Pacific Ocean**: The body of water to the west of the landmass.

A scale bar indicates distances up to 1 mile. An inset map shows the location of the facility relative to the coastline. A legend identifies various symbols used on the map, such as discharge points, pump stations, and pipelines. A note states: "There are no drinking water wells within 1/4 mile of ECL Water Recycling Facility."

Basemap Credits:
USGS TNM - National Hydrography Dataset; Data Refreshed April, 2023; USGS The National Map; National Boundaries Dataset; SDEP Elevation Program; Geographic Names Information System; National Hydrography Dataset; National Land Cover Database; National Structures Dataset; and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau; TIGER/Line data; USFS Road Data; National Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information; U.S. Coastal Relief Model; Data refreshed April, 2023.

Other GIS Credits/Sources:
WB's Inactive Water Line from WB's GIS database; Injection Well and WRF Facility site from WB's GIS database; Hyperion Facility & ECL Facility sites from 2022 LA County Parcel; Location Coordinate from 2012 California Regional Water Quality Control Board Order/Permit; Order # R4-2012-0026

**WEST BASIN MUNICIPAL WATER DISTRICT
REVERSE OSMOSIS BRINE PERMIT
Wednesday, June 21, 2023**

ATTACHMENT B 2 – SITE LAYOUT OF ECLWRP

EPA Form 3510-2S- Site Layout



**Edward C. Little
Water Recycling Facility**

1935 S. Hughes Way
El Segundo, CA 90245

Seawater Intrusion Barrier Treatment System

1. Ozone Injection and Equalization Tank
2. Microfiltration
3. Reverse Osmosis
4. Ultraviolet Light / Hydrogen Peroxide
5. Stabilization and Disinfection
6. Barrier Storage and Pump Station

Chevron Boiler Feed Treatment Systems

1. Ozone Injection and Equalization Tank
2. Microfiltration
7. Reverse Osmosis
8. Chevron Product Storage and Pump Station

Disinfected Tertiary Recycled Water System

9. High Rate Clarification
10. Anthracite Coal Filtration
11. Chlorine Contact Basin
12. Disinfected Tertiary Storage

Solids Handling Treatment System

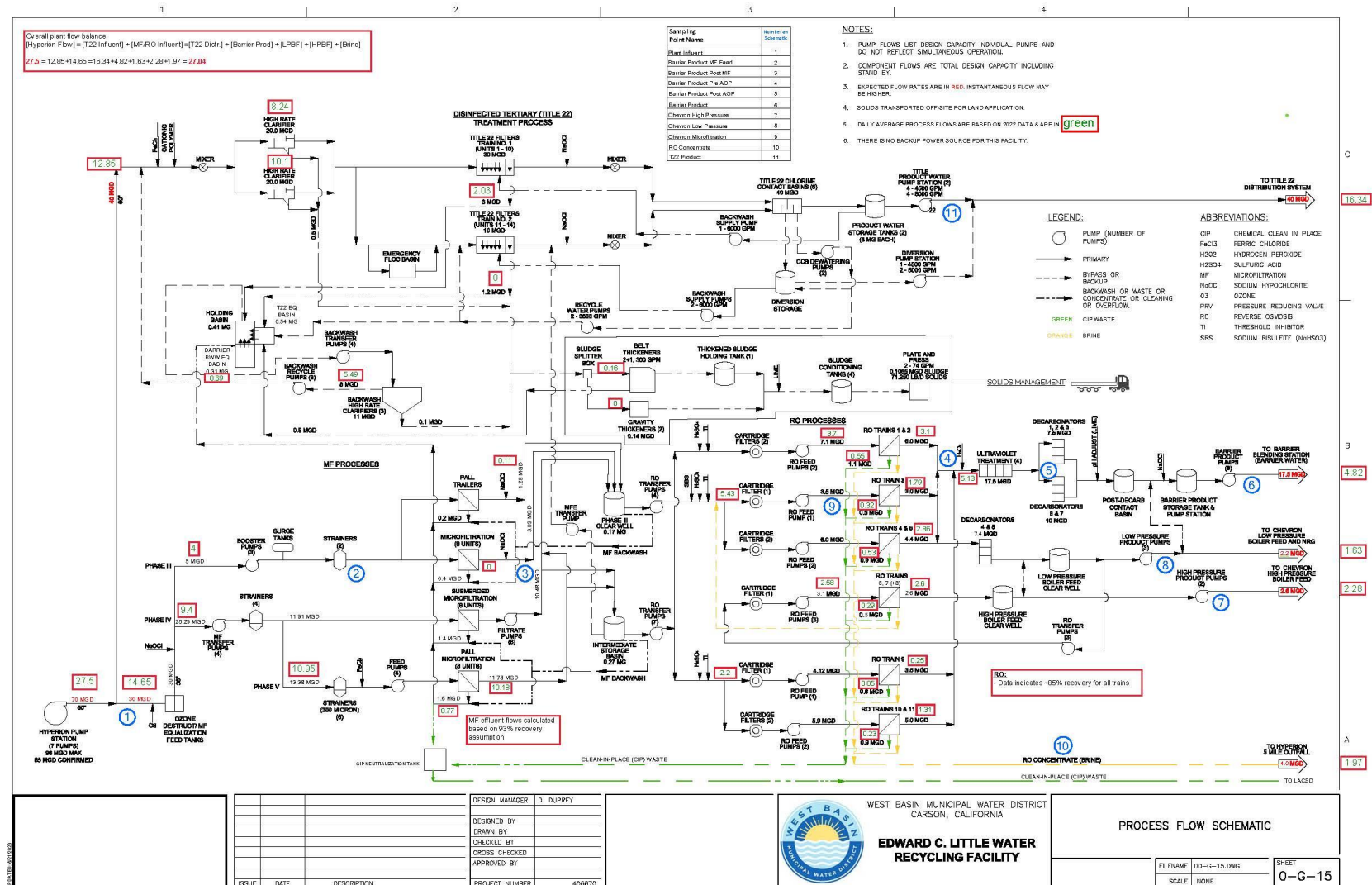
13. Waste Equalization Basins (x3)
14. DensaDeg Solids Clairfier
15. Gravity Thickeners
16. Gravity Belt Thickeners
17. Plate and Press

Support Facilities

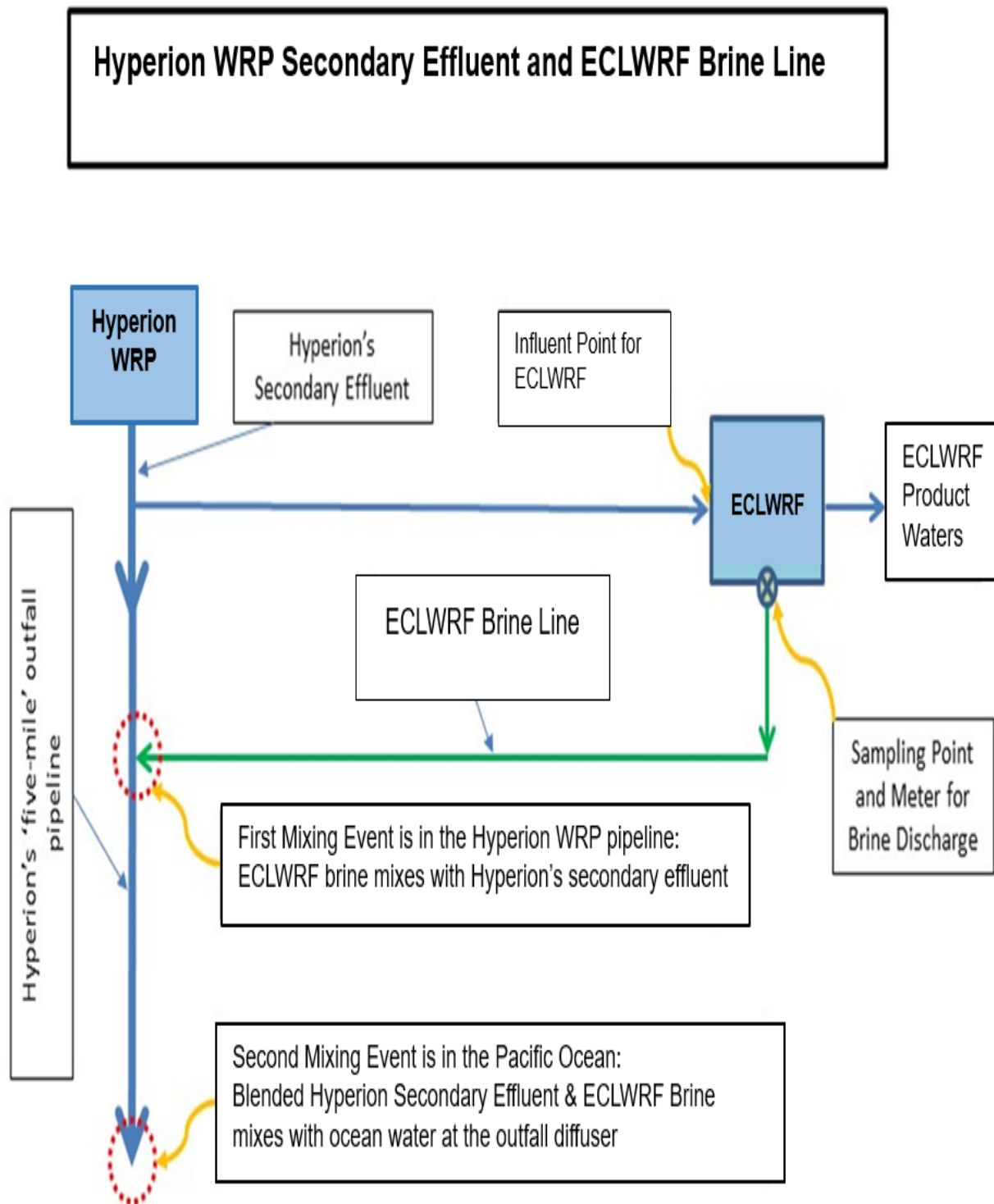
18. Administrative Building
19. Storage Warehouse
20. Gravity Thickeners
21. Gravity Belt Thickeners
22. Plate and Press
23. Liquid Oxygen Storage
24. Ozone Generator
25. Chemical Waste Neutralization



ATTACHMENT C1 – PROCESS FLOW DIAGRAM OF ECLWRF



ATTACHMENT C 2 – ECLWRF GENERAL 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/Permit. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 CFR § 122.41(a); 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/Permit 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/Permit. (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/Permit 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/Permit. 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/Permit. (40 CFR § 122.41(e).)

1.5. Property Rights

- 1.5.1. This Order/Permit 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/Permit 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 USC. § 1318(a)(4)(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/Permit (33 U.S.C. § 1318(a)(4)(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/Permit (33 U.S.C. § 1318(a)(4)(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/Permit (33 U.S.C. § 1318(a)(4)(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/Permit compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 USC § 1318(a)(4)(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 ensure 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 or USEPA Region 9 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 and USEPA Region 9 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 and USEPA may approve an anticipated bypass, after considering its adverse effects, if the Los Angeles Water Board and USEPA determine 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. The notice shall be sent to the Los Angeles Water Board and USEPA Region 9. As of December 21, 2025, all notices submitted in compliance with this section must be submitted electronically by the Discharger to the Los Angeles Water Board and USEPA Region 9 or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR § 3 (including, in all cases, subpart D to part 3), 122.22 and part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular Order or if required to do so by State law. (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, 2025, all notices submitted in compliance with this section must be submitted electronically by the Discharger to the Los Angeles Water Board and USEPA or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this

section and 40 CFR § 3 (including, in all cases, subpart D to part 3), 122.22 and part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular Order or if required to do so by State law. (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.b 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/Permit 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/Permit after the expiration date of this Order/Permit, the Discharger must apply for and obtain a new permit. (40 CFR § 122.41(b).)

2.3. Transfers

This Order/Permit is not transferable to any person except after notice to the Los Angeles Water Board and USEPA. The Los Angeles Water Board and USEPA Region 9 may require modification or revocation and reissuance of the Order/Permit 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/Permit 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/Permit, and records of all data used to complete the application for this Order/Permit, 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 or USEPA Water Region 9 Division Director at any time. (40 CFR § 122.41(j)(2).)

4.2. Records of monitoring information shall include:

- a. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
- b. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
- c. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
- d. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
- e. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
- f. 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)):

- a. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
- b. 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 Region 9 within a reasonable time, any information which the Los Angeles Water Board, State Water Board, or USEPA Region 9 may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order/Permit or to determine compliance with this Order/Permit. Upon request, the Discharger shall also furnish to the Los Angeles Water Board, State Water Board, or USEPA Region 9 copies of records required to be kept by this Order/Permit. (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 Region 9 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 USEPA). (40 CFR § 122.22(a)(3).)
- 5.2.3. All reports required by this Order/Permit and other information requested by the Los Angeles Water Board, State Water Board, or USEPA Region 9 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, State Water Board, and USEPA. (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, State Water Board, and USEPA Region 9 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 C.F.R § 122.22(e).)

5.3. Monitoring Reports

- 5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order/Permit. (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, State Water Board, or USEPA Region 9. 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 Permittee monitors any pollutant more frequently than required by this Order/Permit 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, State Water Board, and/or USEPA Region 9.(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/Permit. (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/Permit, 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 Permit shall report any noncompliance which may endanger health or the environment to the Manager of the Watershed Regulatory Section of the Los Angeles Water Board at (213) 576-6616 and jeong-hee.lim@waterboard.ca.gov, and to the USEPA Region 9 Wastewater Enforcement Office at (415) 947-4179 or (415) 947-4510 and R9NPDES@EPA.gov. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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, 2025, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Los Angeles Water Board/USEPA Region 9 and must be submitted electronically by the Permittee to the initial recipient defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Los Angeles Water Board/USEPA Region 9 may also require the Permittee 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/Permit. (40 CFR § 122.41(l)(6)(ii)(A).)
- b. Any upset that exceeds any effluent limitation in this Order/Permit. (40 CFR § 122.41(l)(6)(ii)(B).)

5.5.3. The Los Angeles Water Board/USEPA Region 9 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 Permittee shall give notice to the Los Angeles Water/USEPA Region 9 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/Permit. (40 CFR § 122.41(l)(1)(ii).)
- 5.6.3. The alteration or addition results in a significant change in the Permittee'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 Permittee shall give advance notice to the Los Angeles Water Board/USEPA Region 9 of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's/Permit's requirements. (40 CFR § 122.41(l)(2).)

5.8. Other Noncompliance

The Permittee shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard

Provision – Reporting 5.5 above. 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. As of December 21, 2025, all reports related to combined sewer overflows, sanitary sewer overflows or bypass events submitted in compliance with this section must be submitted electronically by the Discharger to the Los Angeles Water Board/USEPA Region 9 or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR § 3 (including, in all cases, subpart D to 3), 122.22, and 40 CFR § 127. (40 CFR § 122.41(l)(7).)

5.9. Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Los Angeles Water Board, State Water Board, or USEPA Region 9, the Permittee 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 and USEPA Region 9 are authorized to enforce the terms of this Order/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, or an administrative civil liability by the Los Angeles Water Board, or State Water Board for violating section 301, 302, 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. 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) – Not Applicable

ATTACHMENT E– MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP) No. 7449

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code section 13383 also authorizes the Los Angeles Water Board to establish monitoring, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement 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. Results of monthly, quarterly, semiannual, and annual analyses as applicable shall be reported by the due date specified in Table E-6. The Discharger shall make every effort to schedule monitoring so that the different seasons are represented in the quarterly and semiannual monitoring throughout the year.
- 1.2. Water quality monitoring for all pollutants, except those analyzed in the field, shall be analyzed using the analytical methods described in 40 CFR § 136; or where no methods are specified for a given pollutant, by methods approved by the Los Angeles Water Board, the State Water Resources Control Board (State Water Board), or USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.
- 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 the provision of Water Code section 13176, or approved by the Los Angeles Water Board Executive Officer 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 and USEPA Region 9 each time a new certification and/or renewal of the certification is obtained.
- 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 actually analyzed. The Permittee shall retain the QA/QC documentation in its files and make available for inspection and/or submit this documentation when requested by the Los Angeles Water Board and/or USEPA Region 9. Proper chain of custody procedures must be followed, and a copy of this documentation shall be submitted with the monthly report.
- 1.5. The Permittee shall ensure all monitoring instruments are calibrated and maintained to ensure accuracy of measurements.

- 1.6. For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed, and 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 under the ELAP 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 Board in Appendix II of the 2019 Ocean Plan. 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 analytical method for dilution or concentration of samples, other factors are applied to the ML depending on the sample preparation. The resulting value is the RML.
- 1.9. The Permittee shall select the analytical method that provides an ML lower than the effluent limitation or performance goal established for a given parameter or where no such requirement exists, the lowest applicable water quality objective in the Ocean Plan. If the effluent limitation, performance goal, or the lowest applicable water quality objective is lower than all the MLs in Appendix II of the Ocean Plan, the Permittee must select the method with the lowest ML for compliance purposes. The Permittee shall include in the annual summary reports a list of the analytical methods and MLs employed for each test.
- 1.10. The Permittee 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 lower calibration standard. At no time is the Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
- 1.11. The Permittee shall develop and maintain a record of all spills or bypasses from its collection system or treatment plant according to the requirements in the Waste Discharge Requirements (WDRs) of this Order/Permit. This record shall be made available to the Los Angeles Water Board and USEPA Region 9 upon request and a spill/bypass summary shall be included in the annual summary report.
- 1.12. If the Permittee samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent or effluent constituent more frequently than required by this Order/Permit using approved analytical methods, the results of those analyses

shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with limitations set forth in this Order/Permit.

- 1.13. This monitoring program for ECLWRF is comprised of requirements to demonstrate compliance with the conditions of the NPDES permit, ensure compliance with State water quality standards, and mandate participation in regional monitoring and/or areawide studies.
- 1.14. The Discharger shall ensure that 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. 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/Permit. The North latitude and West longitude information in Table E-1 is approximate for administrative purposes.

Table E- 1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	The influent monitoring station shall be established at the point of inflow to the treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained. (33.9105345N, -118.392W)
001	EFF-001	The effluent monitoring station is at ECLWRF (33.9097N, -118.3922W,) and before commingling with the secondary-treated effluent from the Hyperion Treatment Plant (Hyperion WRP).

3. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to identify changes in influent water quality and volume to assess and improve plant performance, and to conduct reasonable potential analyses for toxic pollutants.

3.1. Monitoring Location 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	Notes
Total Flow	MGD	Recorder	Continuously	a
Ammonia (as N)	mg/L	24-hr composite	Monthly	---

Footnotes for Table E-2:

- a. When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported (not design capacity).

End of footnotes for Table E-2

4. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to determine compliance with 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; conduct reasonable potential analyses for toxic pollutants; and to determine waste load allocation compliance and TMDL effectiveness.

4.1. Monitoring Location at EFF-001

The Discharger shall monitor effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding ML:

Table E-3. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total brine waste flow	MGD	Recorder	Continuously	a
TSS	mg/L	24-hour composite	Monthly	b, c
pH	pH units	Grab	Monthly	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Oil and Grease	mg/L	Grab	Monthly	b, d
Temperature	°F	Grab	Monthly	b
Settleable Solids	mL/L	Grab	Monthly	b, d
Turbidity	NTU	Grab	Monthly	b
Ammonia (as N)	mg/L	Grab and 24-hr composite	Monthly	b, c
Nitrate Nitrogen	mg/L	24-hour composite	Monthly	b, c
Nitrite Nitrogen	mg/L	24-hour composite	Monthly	b, c
Total Organic Nitrogen	mg/L	Calculated	Monthly	b
Total Nitrogen (as N)	mg/L	Calculated	Monthly	b
Total Phosphorous (as P)	mg/L	24-hr composite	Quarterly	c
Salinity	%	24-hr composite	Monthly	b, c
Chlorine Residual	µg/L	Grab	Monthly	b, c
Arsenic	µg/L	24-hr composite	Semiannually	c, e
Cadmium	µg/L	24-hr composite	Semiannually	c, e
Chromium (VI)	µg/L	Grab	Semiannually	e
Copper	µg/L	24-hr composite	Semiannually	c, e
Lead	µg/L	24-hr composite	Semiannually	c, e
Mercury	µg/L	24-hr composite	Semiannually	c, e, f
Nickel	µg/L	24-hr composite	Semiannually	c, e
Selenium	µg/L	24-hr composite	Semiannually	c, e
Silver	µg/L	24-hr composite	Semiannually	c, e
Zinc	µg/L	24-hr composite	Semiannually	c, e
Cyanide, Total	µg/L	Grab	Semiannually	---
Toxicity, Chronic Giant Kelp, <i>Macrocystis pyrifera</i> germination and growth endpoints	Pass or Fail, % Effect (TST)	24-hr composite	Annually	c, k
Phenols (non-chlorinated)	µg/L	24-hr composite	Semiannually	c, h
Phenols (chlorinated)	µg/L	24-hr composite	Semiannually	c, h

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Endosulfans	µg/L	24-hr composite	Semiannually	c, h
Endrin	µg/L	24-hr composite	Semiannually	c
Hexachlorocyclohexane (HCH)	µg/L	24-hr composite	Semiannually	c, h
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hr composite	Semiannually	c, g
Acrolein	µg/L	Grab	Semiannually	---
Antimony	µg/L	24-hr composite	Semiannually	c
Bis (2-chloroethoxy) methane	µg/L	24-hr composite	Semiannually	c
Bis (2-chloroisopropyl) ether	µg/L	24-hr composite	Semiannually	c
Chlorobenzene	µg/L	Grab	Semiannually	---
Chromium (III)	µg/L	Calculated	Semiannually	---
Di-n-butyl phthalate	µg/L	24-hr composite	Semiannually	c
Dichlorobenzenes (BNA)	µg/L	24-hr composite	Semiannually	c, h
Diethyl Phthalate	µg/L	24-hr composite	Semiannually	c
Dimethyl Phthalate	µg/L	24-hr composite	Semiannually	c
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	Semiannually	c
2,4-dinitrophenol	µg/L	24-hr composite	Semiannually	c
Ethylbenzene	µg/L	Grab	Semiannually	---
Fluoranthene	µg/L	24-hr composite	Semiannually	c
Hexachlorocyclopentadiene	µg/L	24-hr composite	Semiannually	c
Nitrobenzene	µg/L	24-hr composite	Semiannually	c
Thallium	µg/L	24-hr composite	Semiannually	c
Toluene	µg/L	Grab	Semiannually	---
Tributyltin	µg/L	24-hr composite	Semiannually	c
1,1,1-Trichloroethane	µg/L	Grab	Semiannually	---
Acrylonitrile	µg/L	Grab	Semiannually	---
Aldrin	µg/L	24-hr composite	Semiannually	c
Benzene	µg/L	Grab	Semiannually	---

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Benzidine	µg/L	24-hr composite	Semiannually	c
Beryllium	µg/L	24-hr composite	Semiannually	c
Bis (2-chloroethyl) ether	µg/L	24-hr composite	Semiannually	c
Bis (2-ethylhexyl) phthalate	µg/L	24-hr composite	Semiannually	c
Carbon Tetrachloride	µg/L	Grab	Semiannually	---
Chlordane	µg/L	24-hr composite	Semiannually	c, h
Chlorodibromomethane	µg/L	Grab	Semiannually	---
Chloroform	µg/L	Grab	Semiannually	---
DDT	µg/L	24-hr composite	Semiannually	c, h
1,4-dichlorobenzene (BNA)	µg/L	24-hr composite	Semiannually	c, h
3,3-dichlorobenzidine	µg/L	24-hr composite	Semiannually	c
1,2-dichloroethane	µg/L	Grab	Semiannually	---
1,1-dichloroethylene	µg/L	Grab	Semiannually	---
Dichlorobromomethane	µg/L	Grab	Semiannually	---
Dichloromethane	µg/L	Grab	Semiannually	---
1,3-Dichloropropene	µg/L	Grab	Semiannually	---
Dieldrin	µg/L	24-hr composite	Semiannually	c
2,4-dinitrotoluene	µg/L	24-hr composite	Semiannually	c
1,2-diphenylhydrazine	µg/L	24-hr composite	Semiannually	c
Halomethanes	µg/L	Grab	Semiannually	h
Heptachlor	µg/L	24-hr composite	Semiannually	c
Heptachlor Epoxide	µg/L	24-hr composite	Semiannually	c
Hexachlorobenzene	µg/L	24-hr composite	Semiannually	c
Hexachlorobutadiene	µg/L	24-hr composite	Semiannually	c
Hexachloroethane	µg/L	24-hr composite	Semiannually	c
Isophorone	µg/L	24-hr composite	Semiannually	c
N-Nitrosodimethylamine	µg/L	24-hr composite	Semiannually	c
N-Nitrosodi-n-propylamine	µg/L	24-hr composite	Semiannually	c
N-Nitrosodiphenylamine	µg/L	24-hr composite	Semiannually	c
PAHs	µg/L	24-hr composite	Semiannually	c, h
PCBs Aroclors	µg/L	24-hr composite	Semiannually	c, h, i
PCBs Congeners	pg/L	24-hr composite	Semiannually	c, h, i
TCDD Equivalents	pg/L	24-hr composite	Semiannually	c, h, j

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
1,1,2,2-Tetrachloroethane	µg/L	Grab	Semiannually	---
Tetrachloroethylene	µg/L	Grab	Semiannually	---
Toxaphene	µg/L	24-hr composite	Semiannually	c
Trichloroethylene	µg/L	Grab	Semiannually	---
1,1,2-Trichloroethane	µg/L	Grab	Semiannually	---
2,4,6-Trichlorophenol	µg/L	24-hr composite	Semiannually	c
Vinyl chloride	µg/L	Grab	Semiannually	---
Total Chromium	µg/L	Grab	Semiannually	e

Footnotes for Table E-3:

- a. When continuous monitoring of flow is required, total daily flow, monthly average flow, and instantaneous peak daily flow (24-hour basis) shall be reported. Actual monitored flow shall be reported (not design capacity).
- b. Weekly and monthly monitoring shall be arranged so that each day of the week, except Saturday and Sunday, is represented over a five-week or month period. The schedule shall be repeated every five months.
- c. For discharge duration of less than 24 hours, individual grab samples may be substituted. A grab sample is an individual sample collected in less than 15 minutes.
- d. Oil and grease, and settleable solids monitoring shall consist of a single grab sample at peak flow over a 24- hour period.
- e. Total recoverable concentrations shall be reported.
- f. USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total mercury, unless another 40 CFR 136 method is sufficiently sensitive.
- g. 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 and gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds 5 pCi/L, then analyze for tritium, strontium-90, and uranium. Although there is currently no ELAP accreditation available for some of the radiochemical methods described above using wastewater, the Discharger shall use an ELAP-accredited laboratory once ELAP accreditation becomes available for the method.
- h. See Attachment A for definition of terms.
- i. PCBs as congeners shall be individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate) using USEPA proposed method 1668c. PCBs as congeners shall be analyzed using method EPA 1668c for three years and an alternate method may be used if none of the PCB congeners are

detected for three years using method EPA 1668c. USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR § 136, Permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as aroclor results, that will be used for assessing compliance with water quality-based effluent limitations (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes to help assess concentrations in the receiving water.

- j. USEPA Method 1613 shall be used to analyze TCDD equivalents.
- k. The Permittee shall conduct whole effluent toxicity monitoring using the most sensitive species as the test species, as outlined in section 5 of this MRP.

End of footnotes for Table E-3

4.2. Flame Retardant and Per-and Polyfluoroalkyl Substances (PFAS) Monitoring

The effluent monitoring requirements described below are consistent with the Terms and Conditions of the recent NMFS biological opinion. Effluent monitoring for flame retardants and PFAS is designed to answer the following questions:

- 1) What are the concentrations of flame retardants and PFAS in the effluent?
- 2) What is the mass of flame retardants and PFAS that are annually discharged to the receiving water?
- 3) Are the concentrations of flame retardants and PFAS in the effluent changing over time?

The Discharger shall monitor for flame retardants and PFAS at Monitoring Location EFF-001 as described in Table E-4 below:

Table E-4. Flame Retardants and PFAS Monitoring

Parameter	Chemical Abstracts Services Number	Units	Sample Type	Minimum Sampling Frequency	Notes
TDCPP (tris(1,3-dichloro-2-propyl)phosphate)	13674-87-8	ng/L & lbs/day	24-hr composite	2 per permit cycle	a, b
TCEP (tris(2-chloroethyl)phosphate)	115-96-8	ng/L & lbs/day	24-hr composite	2 per permit cycle	a, b
TCPP (tris(1-chloro-2-propyl)phosphate)	13674-84-5	ng/L & lbs/day	24-hr composite	2 per permit cycle	a, b

Parameter	Chemical Abstracts Services Number	Units	Sample Type	Minimum Sampling Frequency	Notes
PFAS	Not available	ng/L & lbs/day	24-hr composite	1/year	a, c

Footnotes for Table E-4:

- a. The Discharger shall calculate and report the mass loading rate in both pounds per day (lbs/day) and metric tons per year. The mass loading in lbs/day shall be calculated using the following formula: $8.34 \times Q \times C$, where Q is the average daily effluent flow rate at EFF-001 on the day of sampling in MGD and C is the concentration in mg/L.
- b. USEPA Methods 1694 or 1698; ASTM Methods D7065 or D7485; or other methodologies utilized by the United States Geological Survey, State Water Board Division of Drinking Water, or other federal or State agencies. Although a method for TDCPP, TCEP, and TCPP is not currently offered by ELAP, the Discharger shall use an ELAP-accredited laboratory once ELAP accreditation becomes available for a method.
- c. Department of Defense's Quality System Manual (DOD QSM (version 5.1 or higher)) or other ELAP-accredited methodologies for the analysis of PFAS in wastewaters shall be used to meet the required reporting limit of 50 ng/L. The ELAP accredited method for each group of compounds will specify which specific analytes shall be measured. All analytes that can be measured using the selected ELAP-accredited method shall be analyzed.

End of footnotes for Table E-4

The Discharger shall submit the flame retardant results as directed in section 6.3.2.a. of the Order/Permit and PFAS monitoring results annually no later than June 30 of the year following sampling to the California Integrated Water Quality System online database (CIWQS) as a separate report.

The Discharger shall also submit the results of all flame retardant and PFAS to USEPA and NMFS electronically at the following addresses:

NMFS WCR Protected Resources Division's Long Beach Office Branch
Manager:

Dan.Lawson@noaa.gov

USEPA Region 9, Water Division, NPDES Permits Office Manager:

R9NPDES@epa.gov and Kozelka.Peter@epa.gov

4.3. Nitrogen Monitoring and Estimating Nitrogen Load to Santa Monica Bay

The Discharger shall monitor the effluent for all forms of nitrogen as summarized in Table E-3 (i.e., total organic nitrogen, ammonia-N, nitrate-N, and nitrite-N)

monthly and provide an estimation of total nitrogen discharged on an annual basis to the waters of Santa Monica Bay to determine the discharge's potential influence on harmful algal bloom dynamics and ocean acidification. The Discharger shall calculate the mass loading rate in lbs/day and in metric tons per year. The mass loading rate in lbs/day shall be calculated using the following formula:

$8.34 \times Q \times C$, where Q is the average daily effluent flow rate at the monitoring location and C is the concentration in mg/L.

The Discharger shall submit the estimated annual total nitrogen loads discharged to Santa Monica Bay to CIWQS as a standalone report as well as to USEPA and NMFS electronically at the following addresses:

NMFS WCR Protected Resources Division's Long Beach Office Branch
Manager:

Dan.Lawson@noaa.gov

USEPA Region 9, Water Division, NPDES Permits Office Manager:

R9NPDES@epa.gov and Kozelka.Peter@epa.gov

5. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

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

The chronic IWC is the concentration of a pollutant or the parameter toxicity in the receiving water after mixing. The chronic toxicity IWCs for Discharge Point 001 is 1.04% combined effluent, consisting of 2.27 percent ECLWRF brine effluent that is manually composited with 97.73 percent Hyperion WRP secondary effluent.

5.2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

5.3. Chronic Marine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Permittee shall conduct the following chronic toxicity tests on effluent samples, at the 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). The dilution series shall consist of aliquots of the sample containing 2.27% ECLWRF brine and 97.73% Hyperion WRP secondary effluent (based on flows shown in Table F-2 of the Factsheet), including the IWC of 1.04% based on the 96:1 dilution at the 5-mile

outfall. An additional set of replicates (containing 0.024% (2.27% of the 1.04% IWC) ECLWRF brine in control water shall be tested alongside the dilution series to test the toxicity of the brine without interference from the Hyperion WRP effluent. The same brine sample shall be used in both the dilution series and in the replicates containing only brine and control water. 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 Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director is received.

- a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).
- 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).

5.4. Species Sensitivity Screening

The Permittee shall begin a species sensitivity screening at least 18 months prior to the expiration date of this Order. For continuous dischargers, species sensitivity screening includes four sets of valid tests completed in the span of one year, with one set collected in each of the four quarters. In each of the four sets, the Permittee shall coordinate with the City of Los Angeles to collect effluent samples from ECLWRF and Hyperion WRP at approximately the same time to initiate and concurrently conduct three toxicity tests on the combined effluent using the fish, an invertebrate, and the alga species previously referenced. The ECLWRF brine shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As required in the test method for *Atherinops affinis* for off-site tests, a minimum of three samples shall be collected preferably on days one, three, and five with a maximum holding time of 36 hours before the first use. The most sensitive species determined in the 10-month chronic toxicity special study conducted during the previous permit cycle, giant kelp, *Macrocystis pyrifera*, shall be used for the toxicity testing until a new species sensitivity screening is conducted.

If the results of all 12 valid combined effluent tests conducted during the species sensitivity screening is "Pass," then the species that exhibited the highest percent effect in any single test shall be used for routine monitoring during the following permit cycle. Likewise, if the results of all 12 valid tests conducted during the species sensitivity screening is "Fail," then the species that exhibited the highest percent effect in any single test shall be used for routine monitoring during the following permit cycle. If the result of only one of the 12 valid tests conducted during the species sensitivity screening is "Fail," then the species used in that

test shall be used for routine monitoring during the following permit cycle. If there are multiple valid tests conducted during the species sensitivity screening that result in "Fail," the species that resulted in a "Fail" the most often during the species sensitivity screening shall be used in routine monitoring during the following permit cycle. If two species had the same number of tests that result in "Fail" the species that exhibited the highest percent effect in any single test that resulted in "Fail" shall be used during routine monitoring during the following permit cycle. The brine only test results may also be considered to determine the most sensitive species if toxicity is present.

The invertebrate selected for the species sensitivity screening may be either purple sea urchin (*Strongylocentrotus purpuratus*), the sand dollar (*Dendraster excentricus*), or red abalone (*Haliotis rufescens*). If red abalone (*Haliotis rufescens*) is used for the species sensitivity screening and is determined to be the most sensitive species, then chronic toxicity testing must be conducted when red abalone is more likely to spawn (January to June).

5.5. 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:

- 5.5.1. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in the *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 statistical 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.
- 5.5.2. If the effluent toxicity test does not meet all test acceptability criteria (TAC) and all required test conditions specified in the referenced *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (See Table E-5 for

TAC below), the Permittee must re-sample and re-test within 14 days. Deviations from recommended test conditions, specified in the referenced *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, must be evaluated on a case-by-case to determine the validity of test results. The Discharger shall consider the degree of the deviation and the potential or observed impact of the deviation on the test results in consultation with Los Angeles Water Board and USEPA Region 9 staff before rejecting or accepting a test result as valid and shall report the results of the validity determination with supporting evidence for that decision in their monthly report.

Table E-5. USEPA Test 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 $\leq 205 \mu\text{g/L}$, <25% MSD for survival and <50% MSD for growth. If the test starts with 9-day old larvae, the mean weight per larva must exceed 0.85 milligrams in the reference and brine controls; the mean weight of preserved larvae must exceed 0.72 milligrams. (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 an 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 $56 \mu\text{g/L}$ zinc and achieve an 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, $\geq 10 \mu\text{m}$ germ-tube length in controls, No Observed Effect Concentration (NOEC) must be below $35 \mu\text{g/L}$ in the reference toxicant test, and must achieve an MSD of <20% for both germination and germ-tube length in the reference toxicant. (required)

5.5.3. Dilution water and control water, including brine controls, shall be 1- μ m-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

5.5.4. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using 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.

5.6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan

The Permittee shall prepare and submit a copy of the Permittee's initial investigation TRE work plan to the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director for approval within 90 days of the effective date of this Order/Permit. If the Executive Officer/Water Division Director does not disapprove the work plan within 60 days of being submitted, the work plan shall become effective. The Permittee shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version, or USEPA 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 Permittee, in coordination with the City of Los Angeles, intends to follow if toxicity is detected in the combined discharge. At 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; and
- 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).

5.7. Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail"

The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Permittee becomes aware of this result, the Permittee shall implement an accelerated monitoring schedule within 5 calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the

Permittee shall ensure that the first of six accelerated monitoring tests is initiated within seven calendar days of the Permittee becoming aware of the result. The accelerated monitoring schedule shall consist of six toxicity tests (including the discharge IWC of 1.04% (5-mile outfall), conducted at approximately two-week intervals, over a twelve-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 Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Permittee shall immediately implement the TRE Process conditions set forth below.

5.8. Toxicity Reduction Evaluation (TRE) Process

The Discharger shall, in coordination with the City of Los Angeles, conduct a TRE in accordance with a TRE Work Plan as approved by Los Angeles Water Board and USEPA Region 9. Routine monitoring shall continue during a TRE.

5.8.1. Preparation and Implementation of Detailed TRE Work Plan. The Permittee 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 of a toxicity event, submit to the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director a detailed TRE Work Plan, developed in coordination with the City of Los Angeles, which shall follow the initial investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director:

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

5.8.2. TIE Implementation. The Permittee may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, May 1992); Chronic TIE Manual: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods*

for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

- 5.8.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and stormwater control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Permittee shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
- 5.8.4. The Permittee shall continue to conduct routine effluent monitoring while the TIE and/or TRE process is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
- 5.8.6. The Los Angeles Water Board and USEPA Region 9 recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. However, TRE shall be carried out in accordance with the Executive Officer/Water Division Director-approved TRE Work Plan.
- 5.8.7. The Los Angeles Water Board and USEPA Region 9 may consider the results of any TIE/TRE studies in an enforcement action.

5.9. Reporting

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

- 5.9.1. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the combined discharge (1.04%), using the most sensitive species. 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-6.
- 5.9.2. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, total hardness, salinity, chlorine, and ammonia).
- 5.9.3. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-

10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.

- 5.9.4. TRE/TIE results. The Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director 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 Permittee shall provide status updates in the next monitoring report due, indicating which TIE/TRE steps are underway and which steps have been completed.
- 5.9.5. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- 5.9.6. 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.
- 5.9.7. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Los Angeles Water Board Chief Deputy Executive Officer/Executive Officer or the USEPA Region 9 Water Division Director.

5.10. Ammonia Removal

- 5.10.1. Except with prior approval from the Executive Officer of the Los Angeles Water Board or Water Division Director of USEPA Region 9, ammonia shall not be removed from bioassay samples. The Permittee must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not by other toxicants before the Executive Officer/Water Division Director 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 toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
 - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite

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

5.10.2. 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 or Water Division Director of the USEPA Region 9.

5.11. Chlorine Removal

Except with prior approval from the Los Angeles Water Board Executive Officer or USEPA Region 9 Water Division Director, chlorine shall not be removed from bioassay samples.

6. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

7. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

8. RECEIVING WATER MONITORING REQUIREMENTS (NOT APPLICABLE)

9. OTHER MONITORING REQUIREMENTS

9.1. Biosolids and Sludge Management

The Permittee must comply with all Clean Water Act and regulatory requirements of 40 CFR § 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements. The Permittee must comply with the requirements in Attachment H of this Order/Permit.

9.2. Monitoring of Volumetric Data for Wastewater and Recycled Water

The State Water Board adopted the *Water Quality Control Policy for Recycled Water* (Recycled Water Policy) on February 3, 2009 and amended the Recycled Water Policy on January 22, 2013 and 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 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/Permit 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). 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/Permit.

- a. **Influent:** The Discharger shall monitor the monthly total volume of wastewater collected and treated by the wastewater treatment plant.
- b. **Production:** The Discharger shall monitor the monthly volume of wastewater treated, specifying the level of treatment.
- c. **Discharge:** The Discharger shall monitor the 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.
- d. **Reuse:** The Discharger shall monitor the monthly volume of recycled water distributed, and the 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.

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

- 10.1.1. The Permittee shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
- 10.1.2. If there is no discharge during any reporting period, the report shall so state.
- 10.1.3. Each monitoring report shall contain a separate section titled Summary of Noncompliance, which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with WDRs. This section shall clearly list all noncompliance with discharge requirements, all excursions of effluent limitations, and other noncompliance issues, including, but not limited to a report of any unresolved odor complaints that demonstrate noncompliance with odor prohibitions (section 6.1.2.b), , and the resolution of any noncompliance.
- 10.1.4. The Permittee shall inform the Los Angeles Water Board and USEPA Region 9 well in advance of any proposed construction or maintenance activity, or modification to the ECLWRF that could potentially affect compliance with applicable requirements.
- 10.1.5. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.

- 10.1.6. The laboratory conducting analyses shall be certified by the State Water Resources Control Board DDW ELAP, in accordance with CWC section 13176, or approved by the Los Angeles Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program, and USEPA for that particular parameter and must include QA/QC data in their reports. A copy of the laboratory certification shall be provided each time a new/renewal certification is obtained from ELAP and must be submitted with the annual summary report. 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 Environmental Laboratory Accreditation Program or approved by the Los Angeles Water Board Executive Officer (in consultation with the State Water Board's Quality Assurance Program) and USEPA Region 9 Water Division Director, and in accordance with current USEPA guideline procedures or as specified in this MRP."
- 10.1.7. Non-detect levels reported for the ECLWRF brine effluent are generally higher than effluent limitations or water quality objectives for DDT, chlordane, PCBs and PAHs. Therefore, the Permittee shall strive for lower analytical detection levels than those specified in Appendix II of the Ocean Plan to facilitate pollutant load quantification for the Santa Monica Bay TMDL for DDTs and PCBs.
- 10.1.8. Upon request by the Permittee, the Los Angeles Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the Ocean Plan, to be included in the Permittee's NPDES permit, in any of the following situations:
- a. When the pollutant under consideration is not included in Appendix II;
 - b. When the Permittee agrees to use a test method that is more sensitive than those specified in 40 CFR § 136 (most recent revision);
 - c. When the Permittee agrees to use an ML lower than those listed in Appendix II;
 - d. When the Permittee demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for their matrix; or
 - e. When the Permittee uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the 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, Los Angeles Water Board, State Water Board and

USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.

- 10.1.9. The Permittee shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with this Order/Permit.
- 10.1.10. The Permittee shall attach a cover letter to the monitoring reports. The information contained in the cover letter shall clearly identify violations of the Order/Permit; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

10.2. Self-Monitoring Reports (SMRs)

- 10.2.1. The Permittee shall electronically submit SMRs using the State Water Board's [CIWQS website](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/) (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
- 10.2.2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit quarterly, semiannual, annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order/Permit. 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/Permit, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
- 10.2.3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule, except where specific monitoring periods and reporting dates are required elsewhere in the Order/Permit:

Table E- 6. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins on	Monitoring Period	SMR Due Date
Continuously	Order/Permit effective date	All	Submit with quarterly SMR

Sampling Frequency	Monitoring Period Begins on	Monitoring Period	SMR Due Date
Monthly	First day of calendar month following permit effective date or on Order/Permit effective date if that date is first day of the month	1 st day of calendar month through last day of calendar month	Submit with quarterly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) Order/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
Semiannually	Closest of January 1 or July 1 following (or on) Order/Permit effective date	January 1 to June 30 July 1 to December 31	September 15 March 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 30
Annually (volumetric reporting)	Order/Permit effective date	January 1 through December 31	April 30

10.2.4. Reporting Protocols. The Permittee shall report with each sample result the applicable RML (also known as the RL) and the current MDL, as determined by the procedure in 40 CFR part 136.

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

- a. Sample results greater than or equal to the reported ML (RML) shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RML, 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 RML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

10.2.5. **Compliance Determination.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A and section 8 of this Order/Permit. For purposes of reporting and administrative enforcement by the Los Angeles Water Board, State Water Board, and USEPA Region 9, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the RML.

10.2.6. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "DNQ" or "ND", the Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

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

10.3. Discharge Monitoring Reports (DMRs)

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

10.4. Other Reports

- 10.4.1. The Permittee shall report the results of any special studies, chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – section 7.3.9 of this Order/Permit. The Discharger shall submit reports in compliance with the SMR reporting requirements described in MRP subsection 10.2 above.
- 10.4.2. Hauling Reports
- a. In the event wastes are transported to a different disposal site during the reporting period, the following shall be reported:
 - i. Types of wastes and quantity of each type;
 - ii. Name and either the address or the State registration number for each hauler of wastes (or the method of transport if other than by hauling); and
 - b. If no wastes are transported off site during the reporting period, a statement to that effect shall be submitted.
- 10.4.3. Annual Summary Report
- By April 30 of each year, the Permittee shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results (including the average and peak flow for the year), and a recycled water progress report describing any updates to the development of increased recycled water production. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, the outfall system, or any changes that may affect the quality of the final effluent. The Permittee shall submit annual reports to the Los Angeles Water Board

and USEPA in accordance with the requirements described in MRP subsection 10.2.7 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether 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 shall also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
- b. The Ocean Plan 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.

10.4.4. The Permittee shall submit to the Los Angeles Water Board and USEPA, 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.

10.4.5. Technical Report on Preventive and Contingency Plans

The Los Angeles Water Board requires the Permittee to file with the Los Angeles Water Board and USEPA, within 90 days after the effective date of this Order/Permit, a technical report on its 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.

10.4.6. Climate Change Effects Vulnerability Assessment and Mitigation Plan:

The Permittee shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfires, or other climate-related changes. The Permittee 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. The permittee shall project upgrades to existing assets or new infrastructure projects, and associated costs, necessary to meet desired levels of service. Climate change research also indicates the overarching driver of climate change is increased atmospheric carbon dioxide from human activity. The increased carbon dioxide emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges, lead to more erratic rainfall and local weather patterns, trigger a gradual warming of freshwater and ocean temperatures, and trigger changes to ocean water chemistry. As such, the Climate Change Plan shall also identify steps being taken or planned to address greenhouse gas emissions attributable to wastewater treatment plants, solids handling, and effluent discharge processes. For facilities that discharge to the ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due 12 months after the effective date of this Order/Permit.

10.4.7. Initial Investigation TRE Work Plan

The Permittee shall prepare and submit a copy of the Permittee's initial investigation TRE work plan to the Executive Officer of the Los Angeles Water Board and the USEPA Water Division Director for approval within 90 days of the effective date of this permit. If the Executive Officer and the Water Division Director do not disapprove the work plan within 60 days, the work plan shall become effective. The Permittee 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 Permittee intends to follow if toxicity is detected. Refer to MRP section 5.6 for detailed requirements.

10.4.8. CEC and Nitrogen Monitoring Report

The Permittee shall submit the flame retardant, PFAS, and nitrogen monitoring results annually no later than June 30 of the year following sampling to CIWQS as a standalone report.

In addition to submitting monitoring results to CIWQS, the Discharger shall submit results of all flame retardant and PFAS monitoring electronically to USEPA and NMFS at:

NMFS WCR Protected Resources Division's Long Beach Office [Branch Chief](#): Dan.Lawson@noaa.gov

USEPA Region 9, Water Division, NPDES Permits Office Chief: R9NPDES@epa.gov and Peter.Kozelka@epa.gov.

10.4.9. 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 (geotracker.waterboards.ca.gov) under a site-specific global identification number WDR100000047. The annual volumetric report shall include information specified in section 9.2, 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.

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ATTACHMENT F – FACT SHEET

As described in section 2.2 of this Order/Permit, the Los Angeles Water Quality Control Board (Los Angeles Water Board) and the United States Environmental Protection Agency (USEPA) Region 9 incorporates this Fact Sheet as findings of the Los Angeles Water Board and USEPA Region 9 supporting the issuance of this Order/Permit. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order/Permit.

This Order/Permit 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/Permit that are specifically identified as “not applicable” have been determined not to apply to this Permittee. Sections or subsections of this Order/Permit not specifically identified as “not applicable” are fully applicable to this Permittee.

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F- 1. Facility Information

WDID	4B190137001
Discharger	West Basin Municipal Water District
Current Operator	Veolia North America
Name of Facility	Edward C. Little Water Recycling Facility
Facility Address	1935 South Hughes Way El Segundo, CA 90245 Los Angeles County
Facility Contact, Title and Phone	Uzi Daniel, Manager of Operations, (310) 660-6245
Authorized Person to Sign and Submit Reports	Barkev Meserlian, Executive Manager of Engineering & Operations, (310) 660-6223
Mailing Address	17140 S. Avalon Blvd., Suite 210, Carson, CA 90746
Billing Address	17140 S. Avalon Blvd., Suite 210, Carson, CA 90746
Operator Contact	Linda Martinez, (310) 426-6148
Type of Facility	Advanced Water Treatment Recycling Plant
Major or Minor Facility	Major
Threat to Water Quality	3
Complexity	C
Pretreatment Program	No
Reclamation Requirements	Producer
Facility Permitted Flow	5.2 million gallons per day (MGD) of brine waste
Facility Design Flow	5.2 MGD of brine waste
Watershed	Santa Monica Bay Watershed Management Area
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

- 1.1. The West Basin Municipal Water District (hereinafter Permittee or Discharger) is the owner of the Edward C. Little Water Recycling Facility (hereinafter Facility or ECLWRF), an advanced water treatment facility producing recycled water from secondary effluent wastewater. USEPA and the Regional Water Board have classified ECLWRF as a major discharger. It has a Threat to Water Quality and Complexity rating of 3-C pursuant to California Code of Regulations (CCR), title 23, section 2200.

For the purposes of this Order/Permit, 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 untreated brine waste from reverse osmosis treatment to the Pacific Ocean, a water of the United States and of the State. This Discharger was previously regulated by Order No. R4-2018-0089 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0063401 adopted on June 14, 2018, expired on August 31, 2023, and administratively extended until the adoption of this Order/Permit.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 and Table 4 of this Order/Permit limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits. The Permittee filed a report of waste discharge and submitted an application for reissuance of its WDRs and NPDES permit on February 27, 2023. Supplemental information was requested on March 20, 2023 and received on April 27, 2023. The application was deemed complete on June 19, 2023. A site visit was conducted on May 15, 2023, to observe operations and collect additional data to develop permit limitations and conditions. The terms and conditions of the current NPDES permit have been automatically continued and remain in effect until new WDRs and NPDES permit are adopted pursuant to this Order/Permit. Attachment B-1 provides a map of the area around the Facility. Attachment C1 provides a flow schematic of the Facility.

- 1.3. **Dilution Credits.** ECLWRF brine discharges by gravity into the City of Los Angeles’ Hyperion WRP effluent pipeline just downstream of the gravity valve and effluent pumping plant to the 5-mile outfall. Additional mixing of the brine takes place in the pipeline before reaching the 5-mile outfall. Therefore, the discharge undergoes two dilution events, which are used to estimate the minimum probable initial dilution value (D_m) and to calculate effluent limits as shown in Table F-2.

In the first mixing event, the ECLWRF brine mixes with the Hyperion WRP secondary effluent within the discharge pipeline as it flows toward the 5-mile outfall diffuser.

In the second mixing event, the combined effluent mixes with the Ocean water within the zone of initial dilution, so the zone of initial dilution identified for Hyperion WRP is critical to establishing limits to maintain the ocean water quality objectives in the receiving water. The most recent dilution study used water quality data from between February 2004 and May 2015. Since there have not been any significant changes to the quality of the Hyperion WRP discharge or the ambient conditions since Order Number R4-2017-0045 for the Hyperion WRP was adopted in February 2017, the most recently adopted Order/Permit for Hyperion WRP, Order No. R4-2023-0033, includes the same dilution ratios included in Order Number R4-2017-0045: dilution ratios of 96:1 (ammonia and chronic toxicity) and 84:1 (other pollutants) for the 5-Mile outfall discharge. This Order/Permit also carries over the 96:1 dilution ratio for residual chlorine, ammonia, and chronic toxicity for the 5-mile outfall as used in the previous Order No. R4-2018-0089 for the ECLWRF. The 84:1 dilution ratio is applied to all other constituents for discharges to the 5-mile outfall. After considering the first and second dilution, the corresponding double dilution ratio for the 5-mile outfall is 1:4,171 (using the 96:1 dilution ratio) and 1:3,655 (using the 84:1 dilution ratio).

Table F-2. Dilution Ratios and Brine Percentages

Mixing Events	Dilution Ratio Calculations	Percentage of Brine Waste in Diluted Stream
<u>First mixing event (design flow):</u> Brine waste mixes with Hyperion WRP secondary effluent in the pipeline	5.2 MGD : 450 MGD \cong 1 : 86.54 (design flows)	1.14%
<u>First mixing event (conservative estimate):</u> Brine waste mixes with Hyperion WRP secondary effluent in the pipeline	5.2 MGD : 223 MGD \cong 1 : 43 (average current Hyperion WRP flow and maximum ECLWRF brine flow)	2.27%
<u>Second mixing event (5-mile Outfall ocean mixing, design flow):</u> Comingled Brine waste & Hyperion WRP secondary effluent in Hyperion WRP outfall mixes with the Pacific Ocean	1 : (86.54 \times [96+1]) \cong 1 : 8,394 (design flows)	0.012%

Mixing Events	Dilution Ratio Calculations	Percentage of Brine Waste in Diluted Stream
<u>Second mixing event (5-mile Outfall ocean mixing, conservative estimate):</u> Comingled Brine waste & Hyperion WRP secondary effluent in Hyperion WRP outfall mixes with the Pacific Ocean	$1 : (43 \times [96+1]) \cong 1 : 4,171$ (average current Hyperion WRP flow and maximum ECLWRF brine flow)	0.024%

2. FACILITY DESCRIPTION

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Permittee owns the ECLWRF located at 1935 South Hughes Way, El Segundo, California. The Facility treats secondary effluent provided by the City of Los Angeles' Hyperion WRP to various water qualities depending on the end use of the recycled water. The end uses of the recycled water include: irrigation; high and low pressure boiler feed water for the Chevron El Segundo Refinery boilers; cooling tower makeup water for the refineries, and groundwater injection to the West Coast Basin Barrier Project. The brine waste discharge permitted by this Order is generated by the reverse osmosis treatment systems needed to produce the boiler feedwater and the recycled water for groundwater replenishment. The pipelines between Hyperion WRP and ECLWRF that convey secondary-treated effluent and untreated brine waste are owned and maintained by the Permittee.

The ECLWRF currently has a total wastewater treatment design capacity of 62.5 MGD and produces recycled water using three treatment processes; 1) a disinfected tertiary treatment system, 2) an advanced treatment train consisting of ozone, microfiltration, and reverse osmosis for industrial boiler feed water, and 3) an advanced treatment train consisting of ozone, microfiltration, reverse osmosis, and advanced oxidation for injection into the West Coast Groundwater Basin as a seawater intrusion barrier. The schematic for the advanced treatment train is provided in Attachment C-1. The brine waste stream is a byproduct of the reverse osmosis treatment, as shown in Attachment C-1. Between 2017 and 2022, a daily maximum of 3.85 MGD of brine waste was generated from the reverse osmosis trains of the advanced treatment facility and discharged to the Pacific Ocean. The advanced treatment facilities currently produce up to 17.5 MGD of recycled water for indirect potable reuse for the West Coast Basin Barrier Project and another 4.8 MGD of reverse osmosis permeate for refinery

boiler feed water makeup. As shown in Attachment C-1, the advanced oxidation process is only needed for groundwater injection and includes ultraviolet light with hydrogen peroxide, decarbonation, and lime stabilization.

Solids generated from the above-mentioned processes are dewatered onsite using two plate-and-frame presses. They are then hauled off-site to be beneficially reused for land applications such as composting, construction, and soil blending.

Water Reclamation. The ECLWRF has separate Waste Discharge Requirements and Water Recycling Requirements that govern the use of tertiary and advanced treated recycled water. Order No. 01-043 (amended by Order No. R4-2002-0173) serves as water recycling requirements for the production and use of disinfected tertiary recycled water for irrigation, industrial or commercial cooling towers, boiler feed water, street cleaning, and sewer flushing. Another order, Order No. R4-2006-0069, amending Order No. R4-2006-0009, serves as Waste Discharge and Water Recycling Requirements for the production and use of advanced treated water for groundwater recharge and as a seawater intrusion barrier (West Coast Basin Barrier Project).

2.2. Discharge Points and Receiving Waters

Reverse osmosis brine waste produced at the ECLWRF is discharged through Discharge Point 001 to the Pacific Ocean, a water of the United States. Discharge Point 001 corresponds to the Hyperion WRP 5-mile outfall, identified as Discharge Point 002 in the Hyperion WRP NPDES Order No. R4-2023-0033. Before reaching Discharge Point 001, the untreated brine waste from the reverse osmosis treatment process is discharged to the Hyperion WRP discharge pipe downstream of the gravity valve, before the pump station discharge. Under specific conditions specified in section 3 of the Hyperion WRP Order No. R4-2023-0033, effluent from Hyperion WRP may be diverted to the 1-mile outfall. For the brine from ECLWRF, there is only infrastructure in place for brine to be conveyed to the 5-mile outfall. The City of Los Angeles has diverted the brine to the 1-mile outfall when the 5-mile outfall was out of commission; however, this required installation of a temporary pipeline to convey brine to a storm drain which flows into the 1-mile outfall. Since the Discharger does not have the capability to divert the brine to the 1-mile outfall and the 5-mile outfall is out of commission only under extraordinary circumstances, this Order/Permit does not include requirements for discharge to the 1-mile outfall. Any proposal to discharge ECLWRF brine to the 1-mile outfall will be considered on a case-by-case basis, and requirements will be developed accordingly.

2.2.1. Discharge Point 001 (5-mile outfall)

Discharge Point 001 is commonly referred to as the 5-mile outfall. It is a 12-foot diameter outfall terminating approximately 26,525 feet (8.1 km) west-southwest of the Hyperion WRP at a depth of approximately 187 feet (57m) below the ocean surface. This outfall is located north of the 1-mile

outfall and ends in a “Y” shaped diffuser consisting of two 3,840-foot legs (Latitude 33.91197 N, Longitude: 118.52145 W) (North terminus of “Y” structure – Latitude 33.91933 N, Longitude 118.52848 W; South terminus of “Y” structure – Latitude 33.90065 N, Longitude 118.52727 W). This is the only outfall permitted for the discharge of ECLWRF brine comingled with Hyperion WRP’s undisinfected secondary treated effluent.

2.3. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the existing Order/Permit for discharges from Discharge Point 001 and representative monitoring data from January 2017 to December 2022 are included in Table F-3 below. There was an unplanned discharge of untreated wastewater from the Hyperion WRP on July 11, 2021. This unplanned discharge affected influent water quality to ECLWRF. As a result, the data between July 11, 2021 and March 2022 may not be representative of the normal operating conditions of ECLWRF. Therefore, the monitoring data are summarized in the following format to reflect the effect of the July 11, 2021 incident: (All data from January 1, 2017 to December 31, 2022) / (data from January 1, 2017 through July 10, 2021).

Table F- 3. Effluent Limitations in Order Number R4-2018-0089 and Historical Monitoring Data at EFF-001

Parameter	Units	Annual Average Effluent Limit	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	Instantaneous Maximum Effluent Limit	Maximum Monthly Average Reported	Maximum Weekly Average Reported	Maximum Daily Average Reported	Instantaneous Maximum Reported	Notes
Total Suspended Solids (TSS)	mg/L	--	60	--	--	--	37/7	37/7	37/7	--	--
pH	S.U.	--	--	--	--	6.0 - 9.0	--	--	--	6.8 - 7.5/6.8-7.4	--
Oil and Grease	mg/L	--	25	40	--	75	63/63	63/63	--	63/63	--
Settleable Solids	mL/L	--	1.0	1.5	--	3.0	< 0.1/< 0.1	< 0.1/< 0.1	--	< 0.1/<0.1	--
Turbidity	NTU	--	75	100	--	225	12/1.7	12/1.7	--	12/1.7	--
Ammonia	mg/L	--	346	--	7,500	--	290/290	--	290/290	--	a
Chlorine Residual	µg/L	--	8,000	--	32,000	239,000	--	--	--	8,000/5,300	a
DDT	g/yr	10.1 * Q	--	--	--	--	< 1/< 1	--	--	--	b
PCBs Aroclors	g/yr	0.271 * Q	--	--	--	--	<7.5 µg/L/<7.5 µg/L	--	--	--	b

Footnotes for Table F-3

- a. The average monthly effluent limits shown for ammonia and chlorine residual are six-month median limits.
- b. The annual average effluent limit shown for DDT and PCBs Aroclors is based on the WLA for the ECLWRF in the Santa Monica Bay TMDL for DDTs and PCBs. For DDT, the WLA is 10.1 ng/L (the WLA concentration for Hyperion WLA) x Q (the flow diverted from the Hyperion WRP to ECLWRF). All sample results for DDTs and PCBs aroclors are non-detect. Method detection limits are generally higher than the concentrations in the effluent limits for DDTs and PCBs.

End of footnotes for Table F-3

2.4. Compliance Summary

The following table lists the Facility's exceedances of effluent limitations in Order No. R4-2018-0089 that occurred between January 2017 to December 2022.

Table F- 4. List of Non-compliance

Date of Occurrence	Description of Exceedance
1/23/2021	Oil and Grease Weekly Average limit is 40 mg/L and reported value was 63 mg/L at EFF-001.
1/31/2021	Oil and Grease Monthly Average limit is 25 mg/L and reported value was 63 mg/L at EFF-001.

There were two exceedances of the oil and grease effluent limitations in 2021 as shown in Table F-4. Penalties were assessed on May 20, 2022, which the Discharger paid through a settlement. In the quarterly self-monitoring report, the Discharger noted that the exceedance was an unusual outlier and there were no significant events that would have impacted the effluent water quality.

On September 22, 2020, a spill occurred at ECLWRF because of an overflow of the treated solids dewatering conditioning tank #3. Best management practices were implemented to prevent treated solids from entering the storm drain. However, approximately 40-90 gallons of decanted solution escaped spill containment barriers and entered the storm drain which leads to the City of El Segundo Retention Basin. The Discharger observed that none of the spilled liquid reached the basin. The conditioning tank equalization and overflow lines were inspected and found to be plugged. They were flushed and cleared. The Permittee took the following actions to prevent reoccurrence: developed an annual preventative maintenance plan to inspect the overflow piping and clean as necessary; provided refresher training for operations staff and reviewed the standard operating procedures; and formed a workgroup to evaluate and eliminate "nuisance alarms" that may cause operations staff to miss the high level alarm for conditioning tank #3.

2.5 Receiving Water Description

The receiving water into which the ECLWRF discharges via the Hyperion WRP outfall is in the Santa Monica Bay watershed. The watershed is home to unique wetland, sand dune, and open-ocean ecosystems that support a rich diversity of wildlife and serve as migration stopovers for marine mammals and birds. The Santa Monica Bay and its beaches are invaluable recreational resources and important sources of revenue for the region. The Santa Monica Bay is heavily used for fishing, swimming, surfing, diving, and other activities classified as water contact and non-contact recreation.

Over the years, the beneficial uses of the Santa Monica Bay have been impaired due to pollution, resource over-exploitation, and habitat destruction. The primary problems of concern include acute health risk associated with swimming in runoff-contaminated surf zone waters, chronic (cancer) risk associated with consumption of certain sport fish species in areas impacted by DDT, contaminants of emerging concern (CECs), harmful algal blooms (HABs), and PCB contamination, pollutant loading from point sources, urban runoff, and other nonpoint sources in light of projected population increases and their impacts on marine ecosystem, health of fishery resources, and degradation of natural habitats, and population decline of key species. (SMBRC. 2004. "State of the Bay: 2004 Progress and Challenges", 45 pages; Santa Monica Bay Restoration Project. 1998. "Taking the Pulse of the Bay – State of the Bay 1998").

2.6. Planned Changes

There are currently no plans for changes or upgrades to treatment systems that affect the brine discharge.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

This Order/Permit serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order/Permit 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 locations described in Table 2 subject to the WDRs in this Order/Permit. The State Order and Federal Permit are consolidated into a single permit pursuant to 40 CFR section 124.4(c)(2). Although Discharge Point 001 is beyond the limit of State-regulated ocean waters, effluent plume migration into State waters warrants joint regulation of the discharge by USEPA Region 9 and the Los Angeles Water Board.

3.2. California Environmental Quality Act (CEQA)

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

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, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan. Requirements in this Order/Permit implement the Basin Plan.

Beneficial uses applicable to the receiving waters are as follows:

Table F- 5. Basin Plan Beneficial Uses

Water Body Designation	Receiving Water Name	Beneficial Use(s)
180701040500 (Formerly Hydro. Unit Number 405.12)	Dockweiler Beach	<u>Existing:</u> Industrial service supply (IND), navigation (NAV), water contact recreation (REC-1), non-contact water recreation (REC-2), commercial and sport fishing (COMM), marine habitat (MAR), and wildlife habitat (WILD). <u>Potential:</u> Spawning, reproduction, and/or early development (SPWN).
--	Pacific Ocean Nearshore Zone	<u>Existing:</u> IND, NAV, REC-1, REC-2, COMM, MAR, WILD, preservation of biological habitats (BIOL), rare endangered or threatened (RARE), migration of aquatic organisms (MIGR), SPWN, and SHELL. <u>Potential:</u> None.
--	Pacific Ocean Offshore Zone	<u>Existing:</u> IND, NAV, REC-1, REC-2, COMM, MAR, WILD, RARE, MIGR, SPWN, and SHELL. <u>Potential:</u> None.

3.3.2. **Thermal Plan.** The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal and inland surface waters. Requirements of this Order/Permit implement the Thermal Plan.

3.3.3. **California Ocean Plan.** The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California*, (Ocean Plan) in 1972, as amended. The 2015 version of the Ocean Plan (2015 Ocean Plan) was effective when the Los Angeles Water Board adopted the previous permit, Order No. R4-2018-0089. The State Water Board adopted the latest amendment on August 7, 2018, and it became effective on February 4, 2019. The Ocean Plan is applicable, in its entirety, to point source

discharges to the ocean waters of the State. The Ocean Plan identifies the protected beneficial uses of ocean waters of the State as summarized below:

Table F- 6. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001 (5-mile outfall north leg and south leg)	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; fish migration; marine habitat; fish spawning and shellfish harvesting

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

3.3.4. Santa Monica Bay Comprehensive Conservation Management Plan.

The ECLWRF discharges through the Hyperion WRP 5-mile outfall into Santa Monica Bay, one of the most heavily used recreational areas in California. Recognizing the importance of the Bay as a national resource, the State of California and USEPA nominated Santa Monica Bay to the National Estuary Program, and Congress subsequently included Santa Monica Bay in the program. The Santa Monica Bay National Estuary Program, with support from the USEPA, developed a Comprehensive Conservation and Management Plan (CCMP), which serves as a blueprint for restoring and enhancing the Bay. The Los Angeles Water Board plays a lead role in the implementation of the plan through adoption and enforcement of NPDES permits. Three of the CCMP actions address reducing pollutants of concern at the source (including municipal wastewater treatment plants), recycling water at the City of Los Angeles' Hyperion WRP and the County Sanitation Districts of Los Angeles County's Joint Water Pollution Control Plant, and improving water quality (e.g., CECs and HABs).

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 § 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/Permit contains restrictions on individual pollutants that are no more stringent than required by the federal CWA and Ocean Plan. Individual pollutant restrictions consist of technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs). The TBELs consist of restrictions on total suspended solids (TSS), oil and grease, settleable solids, turbidity, and pH as limited in the Ocean Plan. The minimum applicable federal technology-based requirements for POTWs, such as BOD₅20°C and percent removal of BOD₅20°C and TSS, do not apply at ECLWRF because it does not include primary and secondary treatment to remove solids and dissolved organics and Table 4 of the Ocean Plan does not include limits for BOD₅20°C and percent removal of BOD₅20°C. As a result, BOD₅20°C and percent removal of BOD₅20°C are not included in this Order/Permit. The influent water is secondary treated effluent which has already met those requirements through compliance with Hyperion WRP Order No. R4-2023-0033. The technology-based pollutant restrictions in Order No. R4-2023-0033 implement the minimum, applicable federal technology-based requirements.

WQBELs for ammonia and total residual chlorine 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 § 131.21(c)(1).

WQBELs for DDT and PCBs aroclors have also been established through the Santa Monica Bay TMDL for DDT and PCBs. Details can be found in section 4.3.5 of this Fact Sheet.

- 3.3.7. **Antidegradation Policy.** Federal regulations at 40 CFR section 131.12 require 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 No. 68-16 (“Statement of Policy with Respect to Maintaining High Quality of Waters in California”). Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing

water quality be maintained unless degradation is justified based on specific findings. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provisions at 40 CFR section 131.12 and in State Water Board Resolution No. 68-16. Antidegradation as it relates to this Order/Permit is further described in section 4.4.2. of this Fact Sheet.

3.3.8. Anti-Backsliding Requirements. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. The applicability of these requirements to this Order/Permit is discussed in detail in section 4.4.1 of this Fact Sheet.

3.3.9. Endangered Species Act (ESA) Requirements. This Order/Permit 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 USCA §§ 1531 to 1544). This Order/Permit requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare and endangered species. The Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.

USEPA makes a "may affect, not likely to adversely affect" determination for the following federally listed species: southern California steelhead, North American green sturgeon, the scalloped hammerhead shark, blue whale, fin whale, humpback whale, gray whale, leatherback turtle, loggerhead turtle, white abalone, and olive ridley sea turtle. USEPA makes a "no effect" determination for the remaining listed species under the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFWS) jurisdictions. These no effect determinations are explained in EPA's biological evaluation. USEPA is consulting with the USFWS and NMFS.

3.3.10. Sewage Sludge and Biosolids. This Order/Permit does not authorize any act that results in violation of requirements administered by USEPA to implement 40 CFR Part 503, *Standards for the Use or Disposal of Sewage Sludge*. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Permittee is

responsible for meeting all applicable requirements of 40 CFR Part 503 that are under USEPA's enforcement authority.

3.3.11. **Monitoring and Reporting.** 40 CFR § 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC section 13383 authorizes 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.

3.3.12. **Federal Permit Renewal Contingency.** The renewal of the Permittee's permit by USEPA is contingent upon determination by USFWS and NMFS that the proposed discharge is consistent with the: (1) federal Endangered Species Act (ESA); (2) the Magnuson-Stevens Fishery Conservation and Management Act (MSA); and (3) the Los Angeles Water Board's certification/concurrence that the discharge will comply with applicable State water quality standards.

USEPA's reissuance of NPDES Number CA0063401 for the West Basin Municipal Water District's ECLWRF is subject to requirements of the MSA and ESA. In June 2022, USEPA requested updated information related to: (1) essential fish habitat and managed and associated species, and (2) threatened and endangered species and their designated critical habitats, in the vicinity of the Hyperion outfalls from NMFS and USFWS. USEPA may decide that changes to this permit are warranted based on the results of the completed ESA and MSA consultations and a reopening provision to this effect has been included in the Order/Permit.

Joint issuance of an NPDES permit which incorporates both federal requirements and State waste discharge requirements will serve as the State's concurrence that the discharge complies with State water quality standards. The California Coastal Commission has indicated that it is not necessary to obtain a consistency certification pursuant to the Coastal Zone Management Act for the issuance of a federal NPDES permit authorizing the discharge of brine.

3.3.13. **Water Recycling.** In accordance with statewide statutes and policies concerning water reclamation, (e.g., CWC sections 13000 and 13550-13557, State Water Board Resolution Number 77-1 (*Policy with Respect to Water Reclamation in California*), and State Water Board Resolution Nos. 2009-0011, 2013-0003, and 2018-0057 (*Water Quality Control Policy for Recycled Water* (Recycled Water Policy))), the Los Angeles Water Board strongly encourages, wherever practicable, water recycling, water conservation, and use of storm water and dry-weather urban runoff.

The State Water Board adopted the 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 the 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/Permit implements the Recycled Water Policy by incorporating the volumetric monitoring and 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) in Section 9.2 of the MRP in this Order/Permit. 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/Permit.

- 3.3.14. **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.
- 3.3.15. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR § 122.41, and additional conditions applicable to POTWs in accordance with 40 CFR § 122.42, are provided in Attachment D. The Los Angeles Water Board and USEPA Region 9 have also included in this Order/Permit Special Provisions applicable to the Permittee. The rationale for the Special Provisions contained in this Order/Permit is provided in section 6 in this Fact Sheet.
- 3.3.16. **Impaired Water Bodies on CWA 303(d) List.** The State Water Board adopted the California 2020 – 2022 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 January 19, 2022, the State Water Board approved the CWA section 303(d) List portion of the State's 2020 – 2022 Integrated Report (State Water Board Resolution Number 2022-0006). On May 11, 2022, USEPA approved California's 2020 – 2022 Integrated Report. The CWA

section [303\(d\) list](https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html) can be found at the following link:
https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html.

Santa Monica Bay (Offshore and Nearshore) is on the 303(d) list for the following pollutants/stressors from point and non-point sources: DDT (tissue & sediment), arsenic, mercury, PCBs (tissue & sediment), and trash. Total Maximum Daily Loads (TMDLs) for arsenic and mercury have not been established for the Santa Monica Bay. The Santa Monica Bay Beaches Bacteria TMDLs were approved by USEPA in 2003, as described in section 3.4.4 of this Fact Sheet. The Santa Monica Bay Nearshore and Offshore Debris TMDL was approved by USEPA on March 20, 2012, and more details are provided in section 3.4.4.b of this Fact Sheet. The Santa Monica Bay TMDL for DDT and PCBs was established by USEPA on March 26, 2012, and is further described in section 3.4.4.c of this Fact Sheet.

3.4. Other Plans, Policies and Regulations

3.4.1. Climate Change Adaptation and Mitigation. On March 7, 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 Number 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 to and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses* (Resolution Number 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 implemented 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/Permit contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Board's 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/Permit. The Climate Change Plan shall include an assessment of short- and long-term vulnerabilities of the facility and operations as well as plans to address vulnerabilities of collection systems, facilities, treatment systems, and outfalls for predicted impacts 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 mitigation 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 (where applicable), wildfires, storm surges and back-to-back severe storms, which are expected to become more frequent. The permittee shall project upgrades to existing assets or new infrastructure projects, and associated costs, necessary to meet desired levels of service. Climate change research also indicates the overarching driver of climate change is increased atmospheric carbon dioxide from human activity. The increased carbon dioxide emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges, lead to more erratic rainfall and local weather patterns, trigger a gradual warming of freshwater and ocean temperatures, and trigger changes to ocean water chemistry. As such, the Climate Change Plan shall also identify steps being taken or planned to address greenhouse gas emissions attributable to wastewater treatment plants, solids handling, and effluent discharge processes.

- 3.4.2. **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 part 122.26 that established requirements for stormwater discharges under an NPDES program. To facilitate compliance with federal regulations, the State Water Board issued a statewide general permit, *General Permit for Storm Water Discharges Associated with Industrial Activities*, NPDES No. CAS000001, Order 2014-0057-DWQ, as amended by Order 2015-0122-DWQ and Order 2018-0028-DWQ (Industrial General Permit or IGP). The latest amendment became effective on July 1, 2020. Facilities covered by the IGP include certain sewage or wastewater treatment works (NPDES No. CAS000001, Attachment A).

The IGP is applicable to stormwater discharges from ECLWRF because ECLWRF is a treatment works that treats domestic sewage consisting of secondary-treated wastewater (40 CFR § 122.26(b)(14), includes wastewater treatment devices or systems that are used in the storage, treatment, recycling, and reclamation of municipal domestic sewage (40

CFR § 122.2), and has a design flow of greater than 1 MGD (40 CFR § 122.26(b)(14)(ix)). Order No. R4-2018-0089 included stormwater requirements for ECLWRF; however, stormwater requirements are not carried over to this Order/Permit because NPDES No. CAS000001 is applicable to the Facility and to streamline oversight of the stormwater monitoring program.

The Discharger is required to submit a Notice of Intent to re-enroll ECLWRF in NPDES No. CAS000001 to ensure stormwater from ECLWRF does not negatively impact the beneficial uses of the receiving water.

3.4.3. Sanitary Sewer Overflows (SSOs). – Not Applicable

3.4.4. 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 waterbody for each pollutant of concern. TMDLs identify the maximum amount of pollutants that can be discharged to waterbodies without causing violations of water quality standards.

a. Santa Monica Bay Beaches Bacteria Total Maximum Daily Loads (TMDLs). The Los Angeles Water Board has adopted two TMDLs to reduce bacteria at Santa Monica Bay beaches during dry and wet weather. The TMDLs are included in Chapter 7-4 of the Basin Plan.

While the TMDLs are largely focused on stormwater runoff from municipal separate storm sewer systems (MS4), two specific wastewater treatment plants, the Hyperion Water Reclamation Plant and the Joint Water Pollution Control Plant, are assigned waste load allocations (WLAs) in the TMDL because they discharge directly to Santa Monica Bay. The WLA is, “The Dischargers shall ensure that bacterial concentrations in the effluent do not cause or contribute to exceedances at shoreline monitoring points of bacteriological objectives contained in Chapter 3 during summer dry weather, winter dry weather, and wet weather.”

ECLWRF discharges to the Pacific Ocean from the Hyperion WRP 5-mile outfall. The City of Los Angeles, as the owner of the Hyperion WRP, is identified as a responsible jurisdiction in these TMDLs. In these TMDLs, Hyperion WRP is assigned a WLA of zero days of exceedances of the single sample bacteria objectives during all three identified periods – summer dry weather, winter dry weather and winter wet weather. Hyperion WRP’s WLA of zero exceedance days requires that no discharge from its outfalls cause or contribute to any exceedances of the single sample bacteria objectives at the shoreline compliance points identified in the TMDL and subsequently approved Coordinated Shoreline Monitoring plan (dated April 7, 2004) submitted by responsible agencies and jurisdictions under the TMDLs. The shoreline monitoring

data collected as part of the Los Angeles County MS4 Order No. R4-2021-0105 will be used to demonstrate compliance with the WLAs in these TMDLs.

b. Santa Monica Bay Inshore and Offshore Debris TMDL. The Santa Monica Bay Inshore and Offshore Debris TMDL, which was adopted to eliminate trash in the Santa Monica Bay, is in Chapter 7-34 of the Basin Plan. The WLAs assigned in this TMDL are applicable to MS4 permittees. These WLAs are implemented through the Regional MS4 Permit (Order Number R4-2021-0105) and are not relevant to this Order/Permit.

c. Santa Monica Bay TMDL for DDTs and PCBs. The USEPA adopted the *Santa Monica Bay Total Maximum Daily Loads for DDT and PCBs* on March 26, 2012. The concentrations of DDT and PCBs in the wastewater effluent, including this discharge of brine, are currently at or near the detection limits; however, due to historic discharges of DDT and PCBs to the Santa Monica Bay, these constituents continue to persist in the environment, particularly in the ocean sediments. The concentrations of PCBs and DDT in surface sediments have decreased substantially since the 1970s as much of the contamination has been carried away by currents, buried below the active sediment layer, or degraded due to natural processes. Despite the decreasing trend, the concentrations of DDT and PCBs in surface sediments today are at levels that can still accumulate in fish tissues at levels of concern for safe human health consumption. The ECLWRF is identified as a responsible jurisdiction in this TMDL and as such, the TMDL sets Average Annual WLAs for DDT and PCBs for the ECLWRF. However, the TMDL specifically states that concentration-based waste load allocations are not applicable to ECLWRF. To account for DDT and PCBs mass transfer that occurs when a portion of Hyperion WRP's secondary effluent wastewater is redirected to the ECLWRF but avoid double counting pollutant loads, "floating" mass-based WLAs are assigned to ECLWRF. These mass-based WLAs incorporate the concentration-based WLAs for Hyperion WRP. The mass-based WLAs are implemented in this Order as final effluent limitations.

3.4.5. Environmental Justice and Advancing Racial Equity. Effective January 1, 2023, Water Code section 13149.2 requires the regional board to make a finding on potential environmental justice, tribal impact, and racial equity considerations in connection with anticipated water quality impacts when issuing or reissuing individual waste discharge requirements or waivers of waste discharge requirements that regulate an activity or a facility that may impact a disadvantaged or tribal community, and that includes a time schedule in accordance with subdivision (c) of Section 13263 for achieving

an applicable water quality objective, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance. Under Water Code section 13149.2, subdivision (c), for permit reissuances, “the finding may be limited to considerations related to any changes to the requirements of the prior waste discharge requirements. . . .” Water Code section 189.7 requires the Los Angeles Water Board to conduct outreach in disadvantaged and/or tribal communities when considering proposed discharges of waste that may have disproportionate impacts on water quality in those communities. This Order does not include a time schedule and will not have disproportionate impacts on water quality in disadvantaged or tribal communities. Nevertheless, in accordance with the Water Boards’ efforts to advance racial equity and environmental justice, the Order requires the Permittee to meet water quality standards to protect public health and the environment, thereby benefitting all persons and communities within the Region. The Los Angeles Water Board is committed to developing and implementing policies and programs to advance racial equity and environmental justice so that race can no longer be used to predict life outcomes, and outcomes for all groups are improved.

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 (TBELs); and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR § 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or an indicator parameter may be established.

4.1. Discharge Prohibitions

This permit implements discharge prohibitions that are set forth in section III.I of the Ocean Plan.

4.2. Technology-Based Effluent Limitations

4.2.1. Scope and Authority

Section 301(b) of the CWA and implementing regulations at 40 CFR § 122.44 require that NPDES permits include effluent limitations and

conditions which meet applicable technology-based requirements, at minimum, and any more stringent effluent limitations necessary to achieve water quality standards and state requirements. The discharge authorized by this Order/Permit must meet applicable minimum federal technology-based requirements based on several levels of control:

- a. Best practicable treatment control technology (BPT) represents the average of the best performance by well operated plants within an industrial category. BPT standards apply to toxic, conventional, and nonconventional pollutants.
- b. Best available technology economically achievable (BAT) represents the very best control and treatment measures that have been or are economically achievable within an industrial category. BAT standards apply to toxic and nonconventional pollutants.
- c. Best conventional pollutant control technology (BCT) represents the very best control and treatment measures that have been or are economically achievable within an industrial category. BCT standards apply to conventional pollutants.
- d. New source performance standards (NSPS) represent the best available demonstrated control technology, process, operating methods, or other alternatives, including where practicable, standards permitting no discharge of pollutants. The intent of NSPS is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop national technology-based standards of performance representing the application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR § 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where Effluent Limitation Guidelines are not available for industrial facilities. Where BPJ is used, the permit writer must consider factors outlined in 40 CFR § 125.3.

4.2.2. Applicable Technology-Based Effluent Limitations

The technology-based effluent limitations in this Order/Permit are established in accordance with 40 CFR § 125.3 and based on Table 4 of the Ocean Plan (see Table F-7). These technology-based effluent limitations apply directly to the Discharger's brine effluent.

Table F- 7. TBELs established by the 2019 Ocean Plan

Parameter	Units	AMEL	AWEL	Instan. Min.	Instan. Max	Note
Oil & Grease	mg/L	25	40	--	75	--

Parameter	Units	AMEL	AWEL	Instan. Min.	Instan. Max	Note
Total Suspended Solids	mg/L	60	--	--	--	a
Settleable Solids	mL/L	1.0	1.5	--	3.0	--
Turbidity	NTU	75	100	--	225	--
pH	pH Unit	--	--	6.0	9.0	--

Footnote for Table F-7:

- a. For total suspended solids, the Ocean Plan requires dischargers, as a 30-day average, to remove 75 percent of suspended solids from the influent stream before discharging wastewaters to the ocean, except that the effluent limitation must not be lower than 60 mg/L. Since the influent wastewater to the ECLWRF is secondary wastewater from Hyperion WRP with more stringent TSS effluent limitations than in this Order, this Order does not include the 75 percent removal requirement.

End of footnote for Table F-7

All technology-based effluent limitations from Order Number R4-2018-0089 for Total Suspended Solids (TSS), oil and grease, settleable solids, pH, and turbidity are retained in this Order/Permit. All technology-based effluent limitations are not dependent upon the dilution ratio. In addition to the concentration-based effluent limitations, mass-based effluent limitations are required and must be based on the design flow rate. (40 CFR §122.45(b)(1), (f).) The mass flow rate is based on the design flow rate of 5.2 MGD.

The following table summarizes the TBELs for discharges from ECLWRF:

Table F-8. Summary of TBELs for the ECLWRF

Parameter	Units	AMEL	AWEL	Instan. Min.	Instan. Max.	Note
Oil and Grease	mg/L	25	40	--	75	--
Oil and Grease	lbs/day	1,080	1,730	--	3,250	a
TSS	mg/L	60	--	--	--	--
TSS	lbs/day	2,600	--	--	--	a
Settleable Solids	mL/L	1.0	1.5	--	3.0	--
Turbidity	NTU	75	100	--	225	--
pH	pH unit	--	--	6.0	9.0	--

Footnote for Table F-8:

- a. The mass emission rates are calculated using 5.2 MGD, consistent with the water quality-based limits in the previous permits: $\text{lbs/day} = 8.34 \times C_e$ (effluent concentration, mg/L) $\times Q$ (flow rate, MGD).

End of footnote for Table F-8

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority

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

40 CFR section 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, 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 40 CFR section 122.44(d)(1)(vi). WQBELs must also be consistent with the assumptions and requirements of TMDL WLAs approved by USEPA.

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 WQOs and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

4.3.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and Ocean Plan establish the beneficial uses and WQOs for ocean waters of the State. The beneficial uses of the receiving waters affected by the discharge have been described previously in this Fact Sheet. The Basin Plan contains water quality objectives for bacteria for water bodies designated for water contact recreation, and the Ocean Plan contains water quality objectives for bacterial, physical, chemical, and biological characteristics, and radioactivity. The WQOs from the Ocean Plan and Basin Plan are implemented in this Order/Permit as either final

effluent limitations (based on reasonable potential) or receiving water limitations.

4.3.3. Expression of WQBELs

The WQBELs for marine aquatic life toxics contained in this Order/Permit are based on the Table 3 water quality objectives contained in the Ocean Plan that are expressed as six-month median, daily maximum, instantaneous maximum, and 30-day average water quality objectives.

4.3.4. Determining the Need for WQBELs

Order Number R4-2018-0089 contains effluent limitations for non-conventional and toxic pollutant parameters based on Table 1 of the 2015 Ocean Plan. For this Order/Permit, the need for effluent limitations based on water quality objectives in Table 3 of the Ocean Plan was reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the Ocean Plan. This statistical RPA method (RPcalc version 2.2) accounts for the averaging period of the water quality objective, accounts for and captures the long-term variability of the pollutant in the effluent, accounts for limitations associated with sparse data sets, accounts for uncertainty associated with censored data sets, and assumes a lognormal distribution of the facility-specific effluent data. RPcalc calculates the upper confidence bound (UCB) of an effluent population percentile after complete mixing. In the evaluation employed in this Order/Permit, the UCB is calculated as the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent distribution after complete mixing. The calculated UCB_{95/95} is then compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For constituents that have an insufficient number of monitoring data or a substantial number of non-detected data with a reporting limit higher than the respective water quality objective, the RPA result is likely to be inconclusive. The Ocean Plan requires that the existing effluent limitations for these constituents be retained in the new Order, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a WQO.

The Los Angeles Water Board and USEPA Region 9 staff used RPcalc 2.2 to calculate reasonable potential using the procedure described above. The analysis included effluent data provided by the Permittee from January 2017 to December 2022. The analysis first evaluated reasonable potential of the brine effluent only mixing in the ocean (i.e., for Outfall 001 using minimum dilution ratio 96:1 for ammonia and residual chlorine and 84:1 for all other pollutants. If a pollutant exhibited reasonable potential for

the ocean mixing event, another analysis was conducted to evaluate reasonable potential after mixing with both Hyperion effluent within the discharge pipe and the ocean. For Outfall 001 (5-mile outfall), the minimum dilution ratio of 4,171:1 was used for ammonia and residual chlorine, and 3,655:1 was used for all other pollutants (see section 1.3 of the Fact Sheet for dilution ratio calculations). Following Step 13 of the RPA, other information on the potential toxic impacts of the discharge were considered and WQBELs were developed for ammonia based on Best Professional Judgement to protect beneficial uses. The most recent federal ESA consultation between the National Ocean Atmospheric Administration and USEPA has identified nitrogen species as potentially toxic to marine life in the Santa Monica Bay. This Order/Permit includes limits for ammonia to mitigate potential take of sensitive species due to harmful algal blooms. The Los Angeles Water Board staff and USEPA Region 9 staff determined that ammonia and chlorine residual have reasonable potential to exceed Ocean Plan water quality objectives and therefore, require effluent limitations for Discharge Point 001. There were also 13 constituents that had inconclusive RP results. Effluent limits for these constituents are not established in this Permit/Order, but monitoring requirements for these pollutants were retained from the prior permit. For Discharge Point 001 (5-mile outfall), WQBELs are based on both mixing events.

The Los Angeles Water Board and USEPA Region 9 also developed WQBELs for DDT and PCBs as aroclors pursuant to 40 CFR section 122.44(d)(1)(vii) because they have wasteload allocations under the *Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs*.

In general, for those constituents that have no reasonable potential to cause, or contribute to excursions of the water quality objectives, no numeric limits are prescribed; instead, a narrative statement to comply with all Ocean Plan requirements is provided, and the Permittee is required to monitor for these constituents to gather data for use in future RPAs.

4.3.5. WQBEL Calculations

The ECLWRF brine effluent undergoes two mixing events during discharge to the Pacific Ocean. The first mixing event occurs when the ECLWRF and Hyperion WRP effluents combine and mix inside the discharge brine pipeline. The second mixing event occurs immediately following discharge of the combined effluents (i.e., brine and secondary effluent) from the Hyperion WRP's 5-mile outfall to the Pacific Ocean. Because the ECLWRF brine effluent undergoes two mixing events during discharge, both mixing events are considered when developing WQBELs for the 5-mile outfall.

Example 5-Mile Outfall Calculation

Second Mixing Event Calculation – Dilution in the Ocean

From the Table 3 water quality objectives in the Ocean Plan, effluent limitations are calculated according to the following equation for all pollutants, except for acute toxicity and radioactivity (if applicable):

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

Where

C_e is the effluent limitation ($\mu\text{g/L}$);

C_o is the WQO to be met at the completion of initial dilution ($\mu\text{g/L}$);

C_s is the background seawater concentration ($\mu\text{g/L}$) (see Table F-9 below);
and

D_m is the minimum probable initial dilution expressed as parts seawater per part wastewater.

The D_m is based on observed waste flow characteristics, receiving water density structure, and the assumption that there are no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. In this Order/Permit, dilution ratios of 84:1 and 96:1 have been applied to Discharge Point 001.

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. As site-specific water quality data is not available for pollutants without TMDLs, in accordance with Ocean Plan Table 3 implementing procedures, C_s equals zero for all pollutants, except the following:

Table F-9. Background Seawater Concentrations (C_s)

Waste Constituent	C_s ($\mu\text{g/L}$)
Arsenic	3
Copper	2
Mercury	0.0005
Silver	0.16
Zinc	8
For all other Table 3 parameters	0

The *Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs* (USEPA, 2012) includes estimated background concentrations for DDTs and PCBs of 0.057 ng/L and 0.016 ng/L, respectively. These concentrations were used in the development of Waste Load Allocations for these pollutants.

The calculation of WQBELs for ammonia is demonstrated below for Discharge Point 001, as an example:

Table F-10. Ocean Plan WQOs (C_o) for Ammonia

Constituents	Unit	6-Month Median	Daily Max.	Instan. Max
Ammonia (as N)	mg/L	0.6	2.4	6.0

Using the equation $C_e = C_o + D_m (C_o - C_s)$, effluent limitations are calculated as follows. All calculations are based on discharge through Discharge Point 001 and, therefore, a dilution ratio (D_m) of 96:1 is applied.

Ammonia

$C_e = 0.6 + 96*(0.6 - 0) = 58.2$ mg/L (prescribed as AMEL, see section 4.3.3 above);

$C_e = 2.4 + 96*(2.4 - 0) = 232.8$ mg/L (prescribed as MDEL); and

$C_e = 6.0 + 96*(6.0 - 0) = 582$ mg/L (prescribed as Instantaneous Maximum).

First Mixing Event Calculation – Dilution in the Hyperion WRP Effluent Pipeline

Additional dilution takes place when the brine from the ECLWRF and Hyperion WRP effluent combine and mix inside the Hyperion WRP discharge pipeline and the 5-mile outfall. Calculation of the dilution relies on a conservative approach using the average effluent flow data for Hyperion WRP effluent and maximum design ECLWRF brine discharge capacity.

Hyperion WRP's average flow between 2017 and 2022 (223 MGD) and the ECLWRF's maximum brine discharge flow (5.2 MGD design flow) have been used to represent a conservative flow scenario during the first mixing event. The dilution ratio for this first mixing event is $223/5.2$ or 43:1.

Based on past performance, the 98th percentile one-sided upper confidence bound of the Hyperion effluent ammonia concentrations was 51 mg/L (as calculated by Minitab 14), which was used as the background concentration in the pipeline for the effluent limitation calculations in Order No. R4-2018-0089. The one-sided upper confidence bound of 98% for the Hyperion effluent ammonia data from January 2017 to December 2022 is

53 mg/L (using Minitab 21) and is used in this Order/Permit as shown in the calculations below.

The following inputs are used to calculate final WQBELs for ammonia, which considers the dilution provided by the two mixing events. The Ocean Plan formula, $C_e = C_o + D_m (C_o - C_s)$, is again used. C_o is set equal to the previously calculated ammonia effluent concentrations allowed by 96:1 dilution for the Ocean mixing with the combined effluents. D_m is set equal to the dilution ratio of 43:1, for the dilution of the brine by the Hyperion WRP effluent. C_s is set equal to the critical background concentration for ammonia calculated for the Hyperion WRP effluent (53 mg/L).

$C_o = 58.2$ or 232.8 or 582 mg/L

$C_s = 53$ mg/L

$D_m = 43$

$C_e = 58.2 + 43*(58.2 - 53) = 281.8$ mg/L ≈ 282 mg/L (6-Month Median)

$C_e = 232.8 + 43*(232.8 - 53) = 7,964.2$ mg/L $\approx 7,960$ mg/L (MDEL)

$C_e = 582 + 43*(582-53) = 23,329$ mg/L $\approx 23,330$ mg/L (Instantaneous Maximum)

The calculated ammonia MDEL is less stringent than the MDEL in Order No. R4-2018-0089, therefore the MDEL in Order R4-2018-0089 is retained in this Order to prevent backsliding. The 6-month median and instantaneous maximum limits calculated above are included as effluent limits in this Order.

Other Limit Calculations

Chlorine Residual

Chlorination is used to protect aging microfiltration membranes from biofouling. The maximum concentration of residual chlorine in the brine effluent was 8,000 µg/L (equivalent to the 6-month median effluent limit) between January 2017 and December 2022. Chlorine residual exhibited reasonable potential to exceed the limits in the Ocean Plan.

Table F-11. Ocean Plan Objectives for Total Chlorine Residual

Constituent	6-Month Median	Daily Maximum	Instantaneous Maximum
Total Chlorine Residual	2 µg/L	8 µg/L	60 µg/L

Second Mixing Event Calculation

The impact of the second mixing event is calculated using the equation, $C_e = C_o + D_m (C_o - C_s)$. D_m is the dilution ratio of 96:1, which takes place when the brine and Hyperion WRP effluent combine and exit the diffuser:

$$C_o = 2 \text{ or } 8 \text{ or } 60 \text{ } \mu\text{g/L}$$

$$C_s = 0 \text{ } \mu\text{g/L}$$

$$D_m = 96$$

$$C_e = 2 + 96 (2 - 0) = 194 \text{ } \mu\text{g/L} \text{ (6 Month Median)}$$

$$C_e = 8 + 96 (8 - 0) = 776 \text{ } \mu\text{g/L} \text{ (Daily Maximum)}$$

$$C_e = 60 + 96 (60 - 0) = 5,820 \text{ } \mu\text{g/L} \text{ (Instantaneous Maximum)}$$

First Mixing Event Calculation

The first mixing event is characterized using the equation, $C_e = C_o + D_m (C_o - C_s)$. The Hyperion WRP does not disinfect their effluent, so no chlorine residual is present in the Hyperion WRP effluent and therefore no background concentration is used in this case.

$$C_o = 194 \text{ or } 776 \text{ or } 5,820 \text{ } \mu\text{g/L}$$

$$C_s = 0 \text{ } \mu\text{g/L}$$

$$D_m = 43$$

$$C_e = 194 + 43(194 - 0) = 8,536 \text{ } \mu\text{g/L} \approx \mathbf{8,500 \text{ } \mu\text{g/L}} = 8.5 \text{ mg/L} \text{ (6 Month Median)}$$

$$C_e = 776 + 43(776 - 0) = 34,144 \text{ } \mu\text{g/L} \approx \mathbf{34,000 \text{ } \mu\text{g/L}} = 34 \text{ mg/L} \text{ (Daily Maximum)}$$

$$C_e = 5,820 + 43(5,820 - 0) = 256,080 \text{ } \mu\text{g/L} \approx \mathbf{256,000 \text{ } \mu\text{g/L}} = 256 \text{ mg/L} \text{ (Instantaneous Maximum)}$$

These effluent limits are less stringent than in the current permit. To prevent antibacksliding the current permit limits in Order R4-2018-0089 are retained.

Based on the implementing procedures described above, effluent limitations have been calculated for all Table 3 pollutants (excluding radioactivity and chronic toxicity) in the Ocean Plan that have reasonable potential to cause, or contribute to an excursion above the WQOs, and the calculated effluent limitations are incorporated into this Order/Permit where applicable.

4.3.6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) testing protects the receiving water quality 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 longer time period and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. 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 Hyperion WRP sewershed and the makeup of the ECLWRF brine waste discharge, toxic constituents, or a toxic mix of constituents, may be present in the ECLWRF brine effluent.

The Discharger's effluent is subject to two mixing events and this overall dilution is considered when evaluating chronic toxicity under this Order/Permit (see Table F-2). Also, since there is no data specifically showing the ECLWRF brine contributes to chronic toxicity, this Order/Permit also includes chronic toxicity testing of the brine without mixing with Hyperion's secondary effluent.

Order No. R4-2018-0089 required the Discharger, in coordination with the City of Los Angeles, to conduct a 10-month chronic toxicity monitoring study to simulate and evaluate chronic toxicity levels of the combined ECLWRF and Hyperion WRP effluents following dilution with ocean waters. The in-stream waste concentration (IWC) for chronic toxicity testing was 1.04%, based on Hyperion WRP's dilution ratio at the time of the testing ($D_m = 96$) and critical flows for ECLWRF and Hyperion WRP discharges. Chronic toxicity testing was performed on three representative marine species: giant kelp, Pacific topsmelt, and red abalone, as specified in the Monitoring and Reporting Program No. 7449. Toxicity testing was performed every other month from March 2019 through November 2019. One exception occurred in the testing frequency after the July 2019 toxicity testing for Pacific topsmelt did not pass minimum test acceptability criteria (TAC). The test results for the other two species did meet TAC and were reported. All three species were retested in August 2019 and results were included as an additional month in the study. The bimonthly testing frequency resumed in September 2019. Prior to testing, the combined effluent was manually composited resulting in a final concentration of 2.44% ECLWRF brine and 97.56% Hyperion WRP secondary effluent. Five dilutions of the combined effluent/brine sample were tested during each test event including the IWC of 1.04%, and two dilutions above and

below the IWC (7.1%, 2.1%, 1.04%, 0.70%, and 0.35%). For comparison, a 7.1% concentration of Hyperion WRP effluent alone was also tested.

All statistical endpoints were analyzed using the Test of Significant Toxicity (TST) hypothesis testing statistical approach and TUc (i.e., No Observed Effect Concentration, NOEC, hypothesis testing and point estimate statistical approaches). Results were reported as Pass/Fail and sublethal percentage effect at IWC for TST and TUc = 100/NOEC, NOEC, TUc = 100/EC25, and EC25. All TST results for all species were "Pass." The highest percent effect at the IWC was observed for giant kelp (growth endpoint) at 11% in the July 2019 test. In addition, a 12.55% effect was observed for kelp growth at the 0.35% concentration.

Although all TST tests resulted in Pass, the 11 percent and 12.55 percent effects on kelp growth warrant continued chronic toxicity monitoring. Since the "Pass" toxicity test results show no reasonable potential for the brine effluent to cause or contribute to an exceedance of the Ocean Plan chronic toxicity objective, WQBELs are not included in this Order/Permit. Appendix III of the Ocean Plan contains toxicity testing requirements based on the minimum initial dilution for ocean waste discharges. Dischargers must conduct chronic toxicity testing if the minimum initial dilution of the effluent falls below 100:1. The frequency of chronic toxicity monitoring for discharges between 0.1 and 10 MGD is at least annually. Therefore, the discharger is required to monitor chronic toxicity annually using the TST hypothesis testing approach, as specified in the MRP. This statistical approach is consistent with the Ocean Plan in that it provides maximum protection to the environment since it more reliably identifies acute and chronic toxicity than the current NOEC hypothesis-testing approach (See California Ocean Plan, Appendix I).

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

The 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 samples when it is required. Therefore, when using the TST statistical approach, application of USEPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria 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 and USEPA 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 that include a consideration of concentration-response patterns and/or Percent Minimum Significant Differences (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 Accreditation Program. 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

The final effluent limitations in this Order/Permit are at least as stringent as the effluent limitations in the previous Order/Permit, Order Number R4-2018-0089. Effluent limitation calculations for total residual chlorine and

ammonia resulted in limits less stringent than those in the previous Order/Permit as noted in section 4.3.5. of this Fact Sheet. To prevent backsliding, all effluent limitations for chlorine residual and the MDEL for ammonia in Order Number R4-2018-0089 are retained.

The accompanying monitoring and reporting program requires continued data collection, and if monitoring data show reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the Order/Permit will be reopened to establish WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conform with antidegradation policies and anti-backsliding provisions.

4.4.2. Antidegradation Policies

CWA section 403(c) and implementing regulations at 40 CFR part 125, subpart M, establish ocean discharge criteria for preventing unreasonable degradation of the marine environment of the territorial seas, contiguous zones, and oceans. The regulations at 40 CFR section 125.122(b) allow a permitting authority to presume that a discharge will not cause unreasonable degradation of the marine environment for specific pollutants or conditions if the discharge complies with state water quality standards. This Order/Permit implements State water quality standards for discharges from Discharge Point 001. This Order's requirements for the discharge point are consistent with the Ocean Plan, except for the expression of the units for chronic toxicity. The PBDE flame retardants, which are chemicals of emerging concern, were evaluated according to the consultation between USEPA and NMFS. In all other respects, therefore, USEPA presumes that the discharge will not cause unreasonable degradation.

With respect to chronic toxicity, USEPA is required to consider the site-specific factors listed in 40 CFR section 125.122(a) to determine whether a discharge will cause unreasonable degradation of the marine environment. The chronic toxicity TST tests conducted on the combined ECLWRF brine and Hyperion WRP effluent in 2019 all resulted in "Pass," and no toxicity was observed at the IWC. The City of Los Angeles also completed a special study in 2020 related to acute toxicity where all acute toxicity tests resulted in "Pass." In addition, the Discharger conducted a special study on PBDEs that yielded non-detect results for two samples of ECLWRF brine effluent. Since the data collected during the previous permit cycle did not exhibit toxicity nor show quantifiable amounts of PBDEs, no unreasonable degradation of ocean waters is expected to occur.

This Order/Permit includes both narrative and numeric final effluent limitations, receiving water limitations, and mass emission benchmarks to maintain the chemical, physical, and biological characteristics, and to protect the beneficial uses, of the receiving water. These requirements

ensure that all water quality objectives are being met outside the zone of initial dilution, thereby maintaining the beneficial uses. The Ocean Plan allows for minimal degradation within the zone of initial dilution when the water quality objectives are maintained just outside the zone of initial dilution. The minimal degradation permitted by the Ocean Plan is consistent with the antidegradation policy because it maintains maximum benefit to the people of the State, it will not unreasonably affect the present and anticipated beneficial uses, and it will not result in water quality less than that prescribed in the policies.

The final effluent limitations have been retained in this Order/Permit because the pollutants continue to show reasonable potential to cause or contribute to an exceedance of the water quality objectives in the Ocean Plan.

4.4.3. Stringency of Requirements for Individual Pollutants

This Order/Permit contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on TSS, pH, oil and grease, settleable solids, and turbidity. Restrictions on these technology-based effluent limits are discussed in section 4.2.2 of this Fact Sheet. This Order/Permit's technology-based pollutant restrictions implement the minimum applicable federal technology-based requirements.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating individual water quality-based effluent limitations for priority pollutants are based on the Ocean Plan. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and approved by USEPA. Collectively, this Order/Permit's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and applicable water quality standards.

Table F- 12. Summary of Final Effluent Limitations for Discharge Point 001 (5-Mile Outfall)

Parameter	Units	AMEL	AWEL	MDEL	Instan. Min.	Instan. Max.	Annual Average	6-Month Median	Basis	Notes
Total Suspended Solids (TSS)	mg/L	60	--	--	--	--	--	--	Existing, Ocean Plan	a
TSS	lbs/day	2,600	--	--	--	--	--	--	Existing, Ocean Plan	a, b
pH	pH Unit	--	--	--	6.0	9.0	--	--	Existing, Ocean Plan	c
Oil and Grease (O&G)	mg/L	25	40	--	--	75	--	--	Existing, Ocean Plan	a, c
O&G	lbs/day	1,080	1,730	--	--	3,250	--	--	Existing, Ocean Plan	a, b, c
Settleable Solids	mL/L	1.0	1.5	--	--	3.0	--	--	Existing, Ocean Plan	a, c
Turbidity	NTU	75	100	--	--	225	--	--	Existing, Ocean Plan	a, c
Total Residual Chlorine	µg/L	--	--	32,000	--	239,000	--	8,000	RP, Existing, Ocean Plan	c, d, e, f
Total Residual Chlorine	lbs/day	--	--	1,400	--	10,400	--	350	RP, Existing, Ocean Plan	b, c, d, e, f
Ammonia (as N)	mg/L	--	--	7,500	--	23,330	--	282	RP, Existing, Ocean Plan	c, d, e, f
Ammonia (as N)	lbs/day	--	--	325,000	--	1,000,000	--	12,000	RP, Existing, Ocean Plan	b, c, d, e, f
DDT	g/yr	--	--	--	--	--	10.1*Q	--	TMDL	g, h
PCBs Aroclors	g/yr	--	--	--	--	--	0.271*Q	--	TMDL	g, h

Footnotes for Table F-12:

- a. For intermittent discharges, the daily value used to calculate these average monthly and 6-month median values shall be considered to equal zero for days on which no discharge occurred.
- b. The mass emission rates are calculated using 5.2 MGD design flow rate, consistent with water-quality based limits in the previous permit: lbs/day = 0.00834 x C_e (effluent concentration in µg/L) x Q (flow rate in MGD).
- c. The instantaneous minimum or maximum effluent limitations shall apply to grab samples.
- d. The minimum dilution ratio used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Point 001 is based on two mixing events, one as the effluent mixes with Hyperion WRP effluent in the 5-mile pipeline (43:1) and another where the combined effluents discharge into the ocean (84:1), for an entire dilution of (43*(84+1)) = 3,655 parts seawater and effluent to one part brine. The ocean mixing dilution ratio applied to ammonia, total residual chlorine, and chronic toxicity is 96:1 for an entire dilution of (43*(96+1)) = 4,171 parts seawater and effluent to one part brine.
- e. The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples.
- f. The AMEL for this pollutant is expressed as a 6-month median final effluent limitation.
- g. See Attachment A for definitions of terms.
- h. The total mass load for DDT and PCB from the Joint Water Pollution Control Plant, Hyperion WRP, and West Basin's Water Recycling Plants shall not be more than 14,567 g/yr for DDT and 351 g/yr for PCB. The Discharger is deemed in compliance with these group water quality based effluent limitations (WQBELs) for DDT and PCBs if it is in compliance with the individual mass-based WQBELs for DDT and PCBs in Table F-12 Effluent Limitations. This is the Waste Load Allocation (WLA) and the final effluent limitation for ECLWRF in accordance with the *Santa Monica Bay Total Maximum Daily Load for DDTs and PCBs* (Santa Monica Bay TMDL for DDTs and PCBs) promulgated by USEPA on March 26, 2012.

$$ECLWRF\ WLA = C_{Hyperion\ WRP} * Q_{Hyperion\ WRP\ to\ ECLWRF}$$

Where:

WEST BASIN MUNICIPAL WATER
DISTRICT
EDWARD C. LITTLE WATER
RECYCLING FACILITY

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$C_{\text{Hyperion WRP}}$ is the concentration-based WLA for the Hyperion WRP effluent
 $Q_{\text{Hyperion WRP to ECLWRF}}$ is the flow diverted from Hyperion WRP to ECLWRF
For DDTs: $\text{ECLWRF WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to ECLWRF}} = 10.1 * Q_{\text{Hyperion WRP to ECLWRF}}$
For PCBs: $\text{ECLWRF WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to ECLWRF}} = 0.271 * Q_{\text{Hyperion WRP to ECLWRF}}$

End of footnotes for Table F-12

4.4.4. Storm Water Discharge Specifications (Not Applicable)

4.5. Interim Effluent Limitations (Not Applicable)

4.6. Land Discharge Specifications (Not Applicable)

4.7. Recycling Specifications (Not Applicable)

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. Surface Water

The Ocean Plan and Basin Plan contain numeric and narrative water quality standards applicable to surface waters within the Los Angeles Region. Water quality objectives include a policy to maintain the high-quality waters pursuant to federal regulations (40 CFR § 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations for surface water in the Order/Permit are based on the Ocean Plan and Basin Plan and included to ensure protection of beneficial uses of the receiving water. The receiving water limitations are identical to those prescribed in Order No. R4-2023-0033 issued to the City of Los Angeles for discharges from the Hyperion WRP, which discharges from the same outfall.

5.2. Groundwater (Not Applicable)

5.3. Storm Water Requirements (Not Applicable)

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR § 122.41, and additional conditions applicable to specified categories of NPDES permits in accordance with 40 CFR § 122.42, are provided in Attachment D of the Order/Permit. 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/Permit. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR § 123.25, this Order/Permit omits federal conditions that address enforcement authority specified in 40 CFR § 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/Permit incorporates by reference Water Code section 13387(e).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR § 123.25. The Los Angeles Water Board and USEPA may reopen the Order/Permit to modify conditions and

requirements. Causes for modifications can include, but are not limited to, 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 Ocean Plan and Basin Plan.

6.2.2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** This provision is based on the State Water Board Resolution No. 68-16, which requires the Los Angeles Water Board to regulate the discharge of waste to maintain high quality waters of the state. The Permittee must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. If the Permittee increases plant capacity, this provision requires the Permittee to demonstrate that treatment systems are effective in preventing violations of effluent limitations. This provision requires the Permittee to report specific time schedules for the plant's projects. This provision requires the Permittee to submit a report to the Los Angeles Water Board for approval.
- b. **Operations Plan for Proposed Expansion.** This provision is based on section 13385(j)(1)(D) of the CWC and allows for a time period not to exceed 90 days in which the Permittee may adjust and test the treatment system(s). This provision requires the Permittee to submit an Operations Plan describing the actions the Permittee will take during the period of adjusting and testing to prevent violations.
- c. **Toxicity Reduction Evaluation (TRE) Requirements.** If the discharge consistently exceeds an effluent limitation for toxicity as specified in this permit, the Permittee shall conduct a TRE as detailed in section 5 of the MRP (Attachment E). The TRE will help the Permittee identify the possible source(s) of toxicity. The Permittee shall take all reasonable steps to reduce toxicity to the required level.

Order No. R4-2018-0089 required the Discharger to participate in the Hyperion Ammonia and Acute Toxicity Special Study described in Order No. R4-2017-0045 that evaluates the projected effects of water conservation and planned recycling on effluent acute toxicity and ammonia, including a mass balance of nitrogen species through both treatment plants and an assessment of operational alternatives (e.g., treatment optimization, additional treatment, additional dilution credits) to address projected compliance with acute toxicity and ammonia water quality objectives. A final Special Study Work Plan, including a proposed schedule, was submitted to Los Angeles Water Board and USEPA Region 9 on August 28, 2018, and was approved by both on September 5, 2018 and September 27, 2018, respectively. The

Discharger participated in 12 months of the 18 month study, coordinating same-day sampling events with the City of Los Angeles. Monthly 24-hour composite samples were taken from ECLWRF's influent, microfiltration filtrate, reverse osmosis combined permeate, and reverse osmosis concentrate (brine) for analysis of nitrogen parameters (ammonia nitrogen, nitrate-nitrogen, nitrite-nitrogen, and total Kjeldahl nitrogen). Organic nitrogen and total nitrogen were calculated with the focus being to validate the nitrogen mass balance at ECLWRF. In addition, two composite samples were collected in November 2018 and July 2019 and provided to the City of Los Angeles for acute toxicity testing on the combined ECLWRF brine and Hyperion WRP secondary effluent. The special study final report was submitted to the Los Angeles Water Board and USEPA Region 9 on March 31, 2020 by the City of Los Angeles. The conclusions from the special study final report include:

- i. Results of acute toxicity tests of the Hyperion WRP effluent and West Basin brine mixture did not exceed the acute toxicity threshold;
- ii. Although the total nitrogen balance throughout the ECLWRF was incomplete, a comparison of total nitrogen in the brine effluent and the influent shows ECLWRF brine does not increase total nitrogen loadings in the combined discharge at the 5-mile outfall; and
- iii. Since acute toxicity results did not exceed the acute toxicity threshold, there is little evidence to support modifying the treatment process at the ECLWRF for future compliance with acute toxicity requirements.

The Discharger has satisfied the requirements for the special study on effluent acute toxicity and ammonia. In the future, as more treatment upgrades occur at Hyperion WRP, the Discharger may need to coordinate with the City of Los Angeles in a future study to ensure water quality objectives will be met.

- d. **Special study for chlorinated organophosphate flame retardants.** Order No. R4-2018-0089 included a special study for flame retardants as a result of a consultation with NMFS. This Order/Permit also includes a flame retardant study as a result of an updated consultation. More discussion on the rationale for this study can be found in section 7.2 of this fact sheet.

6.2.3. Best Management Practices and Pollution Prevention

- a. **Spill Clean-up Contingency Plan (SCCP).** Since spills and overflows may occur at this facility, this Order/Permit requires the Permittee to review and update, if necessary, its SCCP after each incident. The Permittee shall ensure that the updated SCCP is readily available to

the sewage system personnel at all times and that the sewage personnel are familiar with it.

- b. **Pollutant Minimization Program (PMP).** This provision is based on the requirements of section III.C.9 of the Ocean Plan.

6.2.4. Construction, Operation and Maintenance Specifications

This provision is based on the requirements of 40 CFR §122.41(e) and the previous Order/Permit. 40 CFR section 122.41(e) also requires the operation of back-up or auxiliary facilities or similar systems when the operation is necessary to achieve compliance with the conditions of the Order/Permit. For proper and effective operation of such facilities or systems, routine maintenance and the operational testing of emergency infrastructure/equipment is necessary. Major sewage spills can cause harm to residents of the Los Angeles region, such as the closure of beaches, and harm to wildlife and benthic life. The impact of any such incident to the receiving waters can be minimized or prevented if the operation of emergency infrastructure occurs unimpeded by operational challenges and in a timely fashion. Thus, this Order/Permit contains requirements for routine maintenance and operational testing of emergency infrastructure/equipment in section 6.3.4.c.

6.2.5. Special Provisions for Sludge (Biosolids)

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 Permittee to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Permittee 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.

6.2.6. Spill Reporting Requirements.

This Order establishes a reporting protocol for how different types of spills, overflows, or bypasses of partially treated sewage from the Facility covered by this Order/Permit are to be reported to regulatory agencies. The WDRs are intended to prevent or minimize impacts of spills to receiving waters.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 308(a) of the federal Clean Water Act 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. CWC section 13383 also authorizes the Los Angeles Water Board to establish monitoring, reporting, and recordkeeping requirements. The MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements in the MRP for this facility.

7.1. Influent Monitoring

Influent monitoring is required to assess treatment plant performance and to monitor ammonia concentrations and mass loads into the facility. Influent monitoring in this Order/Permit follows the influent monitoring requirements in the previous Order/Permit.

7.2. Effluent Monitoring

The Permittee is required to conduct monitoring of the permitted discharges to evaluate compliance with permit limitations and conditions. Monitoring requirements are specified in the Monitoring and Reporting Program (Attachment E). This Order/Permit requires compliance with the Monitoring and Reporting Program, and is based on 40 CFR § 122.48, 122.44(i), 122.41(j), 122.62, 122.63, and 124.5. The Monitoring and Reporting Program is a standard requirement in almost all NPDES permits (including this Order/Permit) issued by the Los Angeles Water Board or USEPA. In addition to containing definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Los Angeles Water Board and USEPA policies. The Monitoring and Reporting Program also contains a sampling program specific for the Permittee'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. Monitoring for those pollutants expected to be present in the discharge from the facility and as required in the Ocean Plan is shown in the Monitoring and Reporting Program (Attachment E). Monitoring frequency for the constituents is based on historic monitoring frequency, Best Professional Judgment, and the following criteria:

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

Criterion 2: Quarterly monitoring will be considered for those pollutants in which some or all historic effluent monitoring data detected the pollutants, but without reasonable potential to exceed water quality objectives; and

Criterion 3: Semiannual monitoring will be considered for those pollutants in which all the historic effluent monitoring data are not detected and do not have reasonable potential to exceed water quality objectives.

Table F- 13. Effluent Monitoring Frequency Comparison

Parameter	Monitoring Frequency (Order No. R4-2018-0089)	Monitoring Frequency (Order No. R4-2023-XXXX)
Total brine waste flow	Continuously	No Change
Salinity	Monthly	No Change
TSS	Monthly	No Change
pH	Monthly	No Change
Oil & Grease	Monthly	No Change
Temperature	Monthly	No Change
Settleable Solids	Monthly	No Change
Turbidity	Monthly	No Change
Nitrate Nitrogen	Monthly	No change
Nitrite Nitrogen	---	Monthly
Total Organic Nitrogen	Monthly	No change
Total nitrogen	Monthly	No change
Total phosphorous	---	Quarterly
Arsenic	Semiannually	No Change
Cadmium	Semiannually	No Change
Chromium (VI)	Semiannually	No change
Copper	Semiannually	No change
Lead	Semiannually	No Change
Mercury	Semiannually	No Change
Nickel	Semiannually	No Change
Selenium	Semiannually	No Change
Silver	Semiannually	No Change
Zinc	Semiannually	No Change
Cyanide, Total	Semiannually	No change
Total Chlorine Residual	Monthly	No Change
Ammonia (as N)	Monthly	No Change
Chronic Toxicity	Special Study	Annually

Parameter	Monitoring Frequency (Order No. R4-2018-0089)	Monitoring Frequency (Order No. R4-2023-XXXX)
Phenols, Non-chlorinated	Semiannually	No change
Phenols, Chlorinated	Semiannually	No change
Endosulfans	Semiannually	No change
Endrin	Semiannually	No Change
HCH	Semiannually	No Change
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	Semiannually	No Change
Acrolein	Semiannually	No Change
Antimony	Semiannually	No Change
Bis(2-chloroethoxy) methane	Semiannually	No Change
Bis(2-chloroisopropyl) ether	Semiannually	No Change
Chlorobenzene	Semiannually	No Change
Chromium (III)	Semiannually	No Change
Di-n-butyl-phthalate	Semiannually	No Change
Dichlorobenzenes (BNA)	Semiannually	No Change
Diethyl phthalate	Semiannually	No Change
Dimethyl phthalate	Semiannually	No Change
4,6-dinitro-2-methylphenol	Semiannually	No Change
2,4-Dinitrophenol	Semiannually	No Change
Ethylbenzene	Semiannually	No Change
Fluoranthene	Semiannually	No Change
Hexachlorocyclopentadiene	Semiannually	No Change
Nitrobenzene	Semiannually	No Change
Thallium	Semiannually	No Change
Toluene	Semiannually	No Change
Tributyltin	Semiannually	No Change
1,1,1-Trichloroethane	Semiannually	No Change
Acrylonitrile	Semiannually	No Change
Aldrin	Semiannually	No Change
Benzene	Semiannually	No Change

Parameter	Monitoring Frequency (Order No. R4-2018-0089)	Monitoring Frequency (Order No. R4-2023-XXXX)
Benzidine	Semiannually	No Change
Beryllium	Semiannually	No Change
Bis(2-chloroethyl) ether	Semiannually	No Change
Bis(2-ethylhexyl) phthalate	Semiannually	No Change
Carbon tetrachloride	Semiannually	No Change
Chlordane	Semiannually	No Change
Chlorodibromomethane	Semiannually	No Change
Chloroform	Semiannually	No Change
DDT	Semiannually	No Change
1,4-dichlorobenzene (BNA)	Semiannually	No Change
3,3'-dichlorobenzidine	Semiannually	No Change
1,2-Dichloroethane	Semiannually	No Change
1,1-Dichloroethylene	Semiannually	No Change
Dichlorobromomethane	Semiannually	No Change
Dichloromethane	Semiannually	No Change
1,3-Dichloropropene	Semiannually	No Change
Dieldrin	Semiannually	No Change
2,4-dinitrotoluene	Semiannually	No Change
1,2-diphenylhydrazine	Semiannually	No Change
Halomethanes	Semiannually	No Change
Heptachlor	Semiannually	No Change
Heptachlor epoxide	Semiannually	No Change
Hexachlorobenzene	Semiannually	No Change
Hexachlorobutadiene	Semiannually	No Change
Hexachloroethane	Semiannually	No Change
Isophorone	Semiannually	No Change
N-Nitrosodimethylamine	Semiannually	No Change
N-Nitrosodi-N-propylamine	Semiannually	No Change
N-Nitrosodiphenylamine	Semiannually	No Change
PAHs	Semiannually	No change
PCBs as Aroclors	Semiannually	No Change
PCBs as Congeners	Semiannually	No Change
TCDD Equivalents	Semiannually	No Change

Parameter	Monitoring Frequency (Order No. R4-2018-0089)	Monitoring Frequency (Order No. R4-2023-XXXX)
1,1,2,2-Tetrachloroethane	Semiannually	No Change
Tetrachloroethylene	Semiannually	No Change
Toxaphene	Semiannually	No Change
Trichloroethylene	Semiannually	No Change
1,1,2-Trichloroethane	Semiannually	No Change
2,4,6-Trichlorophenol	Semiannually	No change
Vinyl chloride	Semiannually	No Change

A January 12, 2018, ESA consultation between NMFS and USEPA identified polybrominated diphenyl ethers (PBDEs), flame retardant compounds and chemicals of emerging concern, as having potential toxic impacts on aquatic life in the Santa Monica Bay. As a result, Order No. R4-2018-0089 required the Permittee to conduct at least two sample analyses of the brine waste from ECLWRF for PBDE flame retardants. The Permittee submitted a work plan on August 20, 2019. The work plan was approved by USEPA and Los Angeles Water Board on September 9, 2019 and September 17, 2019, respectively. Two 24-hour flow-weighted composite brine samples were taken on January 15, 2020 and July 8, 2020. Results were non-detect for all analytes (PBDE-100, -153, -154, -47, and -99) for both samples with method detection limits ranging from 7 to 20 ng/L. As a result, mass loadings of PBDE-specific flame retardants could not be quantitated.

This Order/Permit contains a special study for chlorinated organophosphate flame retardants (TCEP, TCPP, and TDCPP combined), which are replacing PBDEs, and effluent monitoring for all forms of nitrogen based on ESA consultation between the NMFS and USEPA. Specifically, USEPA consulted with NMFS on the reissuance of the Hyperion WRP Order No. R4-2023-0033, which included analysis of the ECLWRF brine discharge. On January 31, 2023, NMFS completed their biological opinion for discharges from the Hyperion WRP that reviewed potential effects on federally listed threatened and endangered species and essential fish habitat. The extent of the impact is expressed in terms of take, which NMFS defined as a specific total nitrogen and an organophosphate flame-retardant annual load. EPA estimated that Hyperion's discharge could be adding 7,807 to 11,566 pounds over the five-year permit period, which would add to the long-term accumulation of persistent organic pollutants in the action area.

Terms and conditions in the NMFS biological opinion include annual effluent monitoring and reporting of all forms of nitrogen and also monitoring for organophosphate flame retardants. These are nondiscretionary measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR § 402.02) and were included in the Hyperion WRP

2023 Order/Permit. USEPA and the Los Angeles Water Board have included the same monitoring requirements in this Order/Permit to ensure that the Terms and Conditions have been implemented and is consistent with other Southern California (i.e. Point Loma and Orange County Sanitation District) POTW NPDES permits, as a larger effect to understand functional plankton diversity, harmful algal blooms, and micronutrient dynamics in the Southern California Bight (i.e. SCCWRP's ROMS-BEC modeling efforts). The proposed monitoring requirements for PFAS compounds is consistent with EPA's PFAS Action Plan (dated June 15, 2022) and PFAS Strategic Roadmap (October 2021) that describe that EPA's goals of reducing PFAS discharges to waterways. This includes proposing monitoring requirements in federally issued NPDES permits, such as this joint issued NPDES permit.

7.3. Whole Effluent Toxicity Testing Requirements

The rationale for WET testing has been discussed extensively in Section 4.3.6. of this Fact Sheet.

7.4. Receiving Water Monitoring

7.4.1. Surface Water

The Monitoring and Reporting Program for this Order/Permit does not include receiving water monitoring requirements for the Permittee. The surface receiving water monitoring relevant to the discharge is instead conducted by the City of Los Angeles under Order No. R4-2023-0033 to ensure the combined Hyperion WRP and ECLWRF brine discharge complies with receiving water limitations in this Order/Permit and in Order No. R4-2023-0033, and to characterize the water quality of the receiving water.

7.4.2. Groundwater (Not Applicable)

7.5. Other Monitoring Requirements

7.5.1. Biosolids and Sludge Management

Attachment H establishes monitoring and reporting requirements for the storage, handling and disposal practices of biosolids/sludge generated from the operation of this treatment facility.

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. PUBLIC PARTICIPATION

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

8.1. Notification of Interested Parties

The Los Angeles Water Board and USEPA have notified the Permittee and interested agencies and persons of its intent to prescribe WDRs and issue an NPDES permit for the discharge and provided an opportunity to submit written comments. The Los Angeles Water Board sent an email to the Native American Heritage Commission on June 14, 2023 requesting a Native American Contacts list and received the list July 14, 2023. Further communications were sent to local communities and tribal communities on September 25, 2023. The public notice and tentative WDRs and NPDES permit were posted on the Los Angeles Water Board's [website](https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.html) at

https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.html under the "Tentative Orders/Permits" heading. Permittee notification was provided by posting a copy of the notice on the front door of the ECLWRF and the local newspaper, El Segundo Herald. In addition, interested agencies and persons were notified through a transmittal email to the Discharger, being included in the email transaction, of the Los Angeles Water Board's intention to prescribe WDRs for the discharge.

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

8.2. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs and NPDES permit as provided through the notification

process. Comments were due either in person or by mail to the Los Angeles Water Board Executive Officer and the USEPA Region 9 Water Division Director at the addresses on the cover page of this Order/Permit, or by email submitted to Danielle.Robinson@waterboards.ca.gov and Mitschele.Becky@epa.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board and USEPA, the written comments were due by 5:00 p.m. on October 13, 2023.

8.3. Public Hearing

The Los Angeles Water Board and USEPA held a joint public hearing on the tentative WDRs and NPDES permit during its regular Board meeting on the following date and time, and at the following location:

Date: November 16, 2023
Time: 9:00 a.m.
Location: 320 W 4th Street, Carmel Room
Los Angeles, California 90013

A virtual platform was also available for those who wanted to join online. The directions were provided in the agenda to register or to view the Board meeting.

Additional information about the location of the hearing and options for participating were available 10 days before the hearing. Any person desiring to receive future notices about any proposed Board action regarding this Discharger, please contact [Danielle Robinson](mailto:Danielle.Robinson@waterboards.ca.gov) at Danielle.Robinson@waterboards.ca.gov, to be included on the email list.

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

8.4. Review of Waste Discharge Requirements

Any person aggrieved by the adoption of the WDRs and Order/Permit may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 pm within 30 calendar days of the date of adoption of this Order/Permit at the following address, except that if the thirtieth day following the date of this Order/Permit falls on a Saturday, Sunday, or State Holiday, the petition must be reviewed the by the State Water Board by 5:00 pm 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](mailto:waterqualitypetitions@waterboards.ca.gov) at waterqualitypetitions@waterboards.ca.gov

For [instructions](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml) on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml. Filing a petition does not automatically stay any of the requirements of this Order/Permit.

8.5. Federal NPDES Permit Appeals

Petitions to the USEPA Environmental Appeals Board (EAB) to review the final NPDES permit are governed by the regulations at 40 CFR section 124.19 and must be filed within 30 days of when notice of final permit issuance is served. Those persons filing a petition for review must have filed comments on this draft NPDES permit or participated in a public hearing on this matter as provided in 40 CFR section 124.19. Otherwise, any such petition for review may be filed only to the extent of changes from the draft permit to the final permit. If a petition for review is filed, only those permit conditions that are uncontested will go into effect pending disposition of the petition for review.

Petitions to the EAB for review of the NPDES permit may be filed electronically in accordance with the procedures available on the EAB's website at www.epa.gov/eab.

Petitions for review may also be submitted in writing and sent to the EAB through the U.S. Postal Service (except by Express Mail), addressed to the EAB's mailing address, which is:

Clerk of the Board
U.S. Environmental Protection Agency
Environmental Appeals Board (MC 1103M)
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

All filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Service Express Mail, should be directed to the following address:

Clerk of the Board
US Environmental Protection Agency
Environmental Appeals Board
1201 Constitution Avenue, NW
WJC East Building, Room 3332
Washington, DC 20004

Petitioners may also contact the Clerk of the Board by email (Clerk_EAB@epa.gov) or by phone at (202) 233-0122.

8.6. Information and Copying

The Report of Waste Discharge (ROWD), other supporting documents, and comments received are on file and may be inspected at the addresses below any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Water Board at the address below or by calling (213) 576-6600, or USEPA at (415) 972-3524.

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

United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901

8.7. Register of Interested Persons

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

8.8. Additional Information

Requests for additional information or questions regarding this Order/Permit should be directed to [Danielle Robinson](#) at (213) 576-6696 or at Danielle.Robinson@waterboards.ca.gov or R9NPDES@epa.gov or Becky Mitschele at (415) 972-3492.

ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

1. Gather and Review Information and Data
 - 1.1. Facility Operation and Performance
 - 1.2. Facility Influent
 - 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

(Note: “Biosolids” refers to non-hazardous sewage sludge as defined in 40 CFR §503.9. Sewage sludge that is hazardous, as defined in 40 CFR part 261, must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).)

1. GENERAL REQUIREMENTS

- 1.1. All biosolids generated by the Permittee shall be reused or disposed of in compliance with the applicable portions of:
 - a. 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 § 503 Subpart B (land application) applies to biosolids placed on the land for the purposes of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR § 503 Subpart C (surface disposal) applies to biosolids placed on land for the purpose of disposal.
 - b. 40 CFR part 258: for biosolids disposed of in a municipal solid waste landfills.
 - c. 40 CFR part 257: for all biosolids use and disposal practices not covered under 40 CFR parts 258 or 503.
- 1.2. 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 uses or disposes of the biosolids itself or transfers their biosolids to another party for further treatment, reuse, or disposal. The Permittee is responsible for informing subsequent preparers, applicators, and disposers of requirements they must meet under 40 CFR part 503.
- 1.3. 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.
- 1.4. No biosolids shall be allowed to enter wetland or other waters of the United States.
- 1.5. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.
- 1.6. Biosolids treatment, storage, use or disposal shall not create a nuisance such as objectionable odors or flies.
- 1.7. The Permittee shall assure that haulers transporting biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.
- 1.8. 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 part 503.20 (b), requesting permission for longer temporary storage.

- 1.9. Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR part 761.
- 1.10. 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 storm or flood having a 1-percent chance of occurring in a 24-hour period in an any given year and from the highest tidal stage that may occur.
- 1.11. There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than 3/8 inches are removed.

2. 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:

- a. 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;
- b. 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; and
- c. 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.

3. MONITORING

- 3.1. Biosolids shall be monitored for the metals required in 40 CFR § 503.16 (for land application) or § 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:

Amount of Sewage Sludge (Metric Tons per 365 days)	Frequency
Greater than 0 but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter
Equal to or greater than 1,500 but less than 15,000	Once per 60 days
Equal to or greater than 15,000	Once per month

For accumulated, previously untested biosolids, the Permittee 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 milligrams pollutant per kilogram biosolids on a 100% dry weight basis.

Biosolids used for land application shall be tested for organic nitrogen, ammonia nitrogen, and nitrate nitrogen at the frequencies required above.

- 3.2. Biosolids shall be monitored for the following constituents at the frequency stipulated in 40 CFR § 503.16: arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled for regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile for that period.
- 3.3. 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 Clean Water 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.
- 3.4. The biosolids shall be tested annually or more frequently if necessary to determine hazardousness in accordance with Title 22 of the California Code of Regulations, Article 1, Chapter 11, Division 4.5 (section 66261.3).

4. PATHOGEN AND VECTOR CONTROL

- 4.1. 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 § 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.

- 4.2. If pathogen reduction is demonstrated using a “Process to Further Reduce Pathogens,” the Permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR § 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform – 6 hours when cooled to <4 degrees Celsius (extended to 24 hours when cooled to <4 degrees Celsius for Class A composted, Class B aerobically digested, and Class B anaerobically digested sample types); Salmonella spp. Bacteria – 24 hours when cooled to <4 degrees Celsius (unless using Method 1682 – 6 hours when cooled to 10 degrees Celsius); enteric viruses – 6 hours when cooled to <10 degrees Celsius (extended to one month when cooled to <4 degrees Celsius).
- 4.3. 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 § 503.33 (b).

5. LAND APPLICATION

The Permittee shall ensure that Class A thermophilically digested biosolids are applied at a rate not to exceed the agronomic rate for the crop that is grown.

6. SURFACE DISPOSAL

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.

7. NOTIFICATION

The Permittee either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements.

7.1. Notification of 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.

7.2. Interstate Notification

If bulk biosolids are shipped to another State or to Indian Lands, the Permittee must send written notice within 60 days of the shipment and 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).

7.3. Land Application Notification

A reuse/disposal plan shall be submitted to USEPA Region 9 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, a determination of agronomic rates, and a groundwater monitoring plan or a description of why groundwater monitoring is not required.

If the biosolids do not meet 40 CFR § 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 § 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 9 Coordinator of this information.

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.

7.4. Surface Disposal Notification

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

8. REPORTING

The Permittee shall submit an annual biosolids report to USEPA Region 9 Biosolids Coordinator and the Los Angeles Regional Water Quality Control Board by February 19 of each calendar year. The report shall include:

- 8.1. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
- 8.2. Results of all pollutant monitoring required in the Monitoring Section above. Results must be reported on a 100% dry weight basis.
- 8.3. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR § 503.17 and 503.27, and certifications.
- 8.4. 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.
- 8.5. Names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
- 8.6. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, deep well injection, or other reuse/disposal methods not covered above, and volumes delivered to each.
- 8.7. The Permittee shall submit, or require all parties contracted to manage their biosolids to submit, an annual biosolids report to USEPA Region 9 Biosolids Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:

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), results of any groundwater monitoring; for land application: biosolids loading rates (metric tons per hectare), nitrogen loading rates (kg/ha), calculated plant available nitrogen, dates of applications, crops grown, dates of seeding and harvesting and certifications that the requirement to obtain information in 40 CFR § 503.12(e)(2), management practices in §503.14, site restrictions in § 503.32(b)(5) have been met; for biosolids exceeding 40 CFR §503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date; and for closed sites, the date of site closure and certifications of management practiced for three years following site closure.

- 8.8. The annual biosolids report shall be submitted to USEPA using USEPA's NPDES [Central Data Exchange \(CDX\)](https://cdx.epa.gov/) and can be accessed at <https://cdx.epa.gov/>.