

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

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**ORDER NO. R4-2024-XXXX
NPDES NUMBER. CA0064246**

**WASTE DISCHARGE REQUIREMENTS AND
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR WEST BASIN MUNICIPAL WATER DISTRICT, JUANITA MILLENDER-
MCDONALD CARSON REGIONAL WATER RECYCLING PLANT,
DISCHARGE TO THE PACIFIC OCEAN VIA THE A.K. WARREN WATER
RESOURCE FACILITY (FORMERLY KNOWN AS THE JOINT WATER POLLUTION
CONTROL PLANT)**

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

Table 1. Discharger Information

| | |
|-------------------------|---|
| Discharger | West Basin Municipal Water District (or Permittee) |
| Name of Facility | Juanita Millender-McDonald Carson Regional Water Recycling Plant (Carson WRP) |
| Facility Address | 21029 South Wilmington Avenue Carson, CA 90810 Los Angeles County |

Table 2. Discharge Location

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|------------------------|-----------------------------|---|---|------------------------|
| 001 | Reverse Osmosis Brine | 33.689167°N | 118.316667°W | Pacific Ocean |
| 002 | Reverse Osmosis Brine | 33.700833°N | 118.338056°W | Pacific Ocean |
| 003 | Reverse Osmosis Brine | 33.700833°N | 118.300000°W | Pacific Ocean |
| 004 | Reverse Osmosis Brine | 33.706111°N | 118.328333°W | Pacific Ocean |

Table 3. Administrative Information

| | |
|--|--|
| This Order was adopted on: | February 22, 2024 |
| This Order shall become effective on: | April 1, 2024 |
| This Order shall expire on: | March 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

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1. FACILITY INFORMATION

Information describing the Juanita Millender-McDonald Carson Regional Water Recycling Plant (Carson WRP) 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 Carson WRP's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Los Angeles Water Board) finds:

- 2.1. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the CWC (commencing with section 13370). This Order also serves as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.
- 2.2. **Background and Rationale for Requirements.** The Los Angeles Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E, and G are also incorporated into this Order.
- 2.3. **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 has notified the West Basin Municipal Water District (West Basin or Permittee) and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- 2.5. **Consideration of Public Comment.** The Los Angeles Water Board, in a public meeting, heard and considered all comments pertaining to this Order. Details of the public meeting are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order Number R4-2018-0090 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. This action in no way prevents the Los Angeles Water Board from taking enforcement action for past violations of the previous Order.

3. DISCHARGE PROHIBITIONS

3.1. Discharges to Discharge Points 003 and 004 are prohibited, except during the following situations, provided that the use of Discharge Points 001 and 002 are maximized and that the Los Angeles Water Board is notified as described below:

- 3.1.1. Emergency discharge of the mixture of Carson WRP brine and A.K. Warren Water Resource Facility (Warren Facility) secondary effluent when the total flow rate in the discharge pipeline approaches the hydraulic capacity of Discharge Points 001 and 002 as determined by the Warren Facility Operations staff.
- 3.1.2. Emergency discharge of the mixture of Carson WRP brine and Warren Facility secondary effluent during power outages in which back-up power supplies are inoperable or insufficient to pump the total flow through Discharge Points 001 and 002.
- 3.1.3. Discharge of the mixture of Carson WRP brine and Warren Facility secondary effluent during planned preventative maintenance such as routine opening and closing of the outfall gate valves for exercising and lubrication; or
- 3.1.4. Discharge of the mixture of Carson WRP brine and Warren Facility secondary effluent during major planned capital improvement projects when there is no other feasible alternative.

The Permittee shall notify the Los Angeles Water Board a minimum of 30 days prior to discharging from Discharge Points 003 and 004 during a planned diversion such as preventative maintenance or capital improvement projects. This notification shall include the rationale for the discharge, the expected time, date, and the duration of the discharge. Planned diversions to accommodate capital improvement projects will be considered on a case-by-case basis and must be approved by the Executive Officer of the Los Angeles Water Board prior to discharge.

- 3.2. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
- 3.3. Discharge to designated Areas of Special Biological Significance is prohibited.
- 3.4. 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.

- 3.5. 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 from the Carson WRP that is not brine waste is prohibited.
- 3.7. The discharge of brine waste at any location different from Discharge Points 001, 002, 003, or 004 is prohibited and constitutes a violation of this Order.
- 3.8. Brine waste discharges from the Carson WRP shall be limited to a maximum flow of 1.2 MGD.
- 3.9. Other than the brine waste discharge authorized by this Order, the discharge of water, materials, chemicals, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, radiological wastes, biological warfare agent, or other wastes to the Pacific Ocean, a storm drain system, or other waters of the United States are 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 Carson WRP 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.
- 3.13. The discharge of trash to surface water of the United States or the deposition of trash where it may be discharged into surface water of the State is prohibited.
- 3.14. Waste discharged to the ocean must be essentially free of:
 - a. Material that is floatable or will become floatable upon discharge.
 - b. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
 - c. Substances that will accumulate to toxic levels in marine waters, sediments or biota.
 - d. Substances that significantly decrease the natural light to benthic communities and other marine life.
 - e. Materials that result in aesthetically undesirable discoloration of the ocean surface.

4. EFFLUENT LIMITATIONS, PERFORMANCE GOALS, AND DISCHARGE SPECIFICATIONS

4.1. Effluent Limitations – Discharge Points 001, 002, 003, and 004

4.1.1. Final Effluent Limitations – Discharge Points 001, 002, 003, and 004

The Permittee shall maintain compliance with the following effluent limitations at Discharge Points 001, 002, 003, and 004, with compliance measured at Monitoring Location EFF-001 as described in the attached Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations for Discharge Points 001, 002, 003, and 004

| Parameter | Units | Average Monthly | Average Weekly | Instantaneous Maximum | Annual Average | Notes |
|--|---------|-----------------|----------------|-----------------------|----------------|---------|
| Total Suspended Solids (TSS) | mg/L | 60 | -- | -- | -- | a |
| TSS | lbs/day | 600 | -- | -- | -- | a, b |
| Oil and Grease (O&G) | mg/L | 25 | 40 | 75 | -- | a, c |
| O&G | lbs/day | 250 | 400 | 750 | -- | a, b, c |
| Settleable Solids | mL/L | 1.0 | 1.5 | 3.0 | -- | a, c |
| Turbidity | NTU | 75 | 100 | 225 | -- | a, c |
| DDT | g/yr | -- | -- | -- | 10.1*Q | d, e |
| Polychlorinated Biphenyls (PCBs) as Aroclors | g/yr | -- | -- | -- | 0.271*Q | d, e |

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 the design discharge flow rate of 1.2 MGD, consistent with the water quality-based limits in the previous permit: lbs/day = 8.34 x Ce (effluent concentration in mg/L) x Q (flow rate in MGD).
- c. The instantaneous maximum effluent limitations shall apply to grab samples.

- d. See Attachment A for definition of terms.
- e. 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 DDTs and PCBs mass load from the Warren Facility, the Hyperion WRP, and West Basin’s Edward C. Little and Carson Regional Water Recycling Plants shall not be more than 14,567 g/yr for DDTs and 351 g/yr for PCBs. The Discharger is deemed in compliance with these group water quality-based effluent limitations (WQBELs) for DDTs and PCBs if it complies with the individual mass-based WQBELs for DDTs and PCBs. The Santa Monica Bay TMDL for DDTs and PCBs further states that the waste load allocation (WLA) and the final effluent limitation for the Carson WRP are as follows:

$$\text{Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + C_{\text{Warren Facility}} * Q_{\text{Warren Facility to Carson WRP}}$$

Where:

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

$C_{\text{Warren Facility}}$ is the concentration WLA for the Warren Facility effluent

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

$Q_{\text{Warren Facility to Carson WRP}}$ is the effluent flow diverted from the Warren Facility to Carson WRP

$$\text{For DDTs: Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + 0 = 10.1 * Q_{\text{Hyperion WRP to Carson WRP}}$$

$$\text{For PCBs: Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + 0 = 0.271 * Q_{\text{Hyperion WRP to Carson WRP}}$$

End of Footnotes for Table 5

4.1.2. Other Final Effluent Limitations – Discharge Point 001, 002, 003, and 004

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.

4.1.3. Interim Effluent Limitations –Not Applicable

4.2. Land Discharge Specifications –Not Applicable

4.3. Recycling Specifications

The Carson WRP indirectly recycles water from the Hyperion Water Reclamation Plant (through the Edward C. Little Water Recycling Facility) that would otherwise be discharged to the ocean. Recycling specifications are not established within this Order. West Basin produces recycled water at the Carson WRP under Order 01-043 (amended by Order No. R4-2002-0173) 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 Warren Facility NPDES permit No. CA0053813. The receiving water monitoring is conducted by the Joint Outfall System (JOS) to ensure the mixture of Warren Facility effluent and Carson WRP brine in the discharge is in compliance with receiving water limitations and to characterize the water quality of the receiving water.

5.1.1. Bacterial Characteristics

a. 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 (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*.

- b. 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.

c. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Los Angeles Water Board, 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.

- d. The Permittee shall ensure that bacterial concentrations in the effluent discharged 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.

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.

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, the more stringent provision shall apply:

- a. Neither the treatment nor the discharge of pollutants shall create 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, 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.
- f. The provisions of this Order are severable. If any provision of this Order or the application of any provision of this Order is found invalid, the remainder of this Order shall not be affected.
- g. Nothing in this Order 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 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 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 Carson WRP and always be available to operating personnel.
- n. If there is any storage of hazardous or toxic materials or hydrocarbons at the Carson WRP and if the Carson WRP is not always manned, 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 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 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 of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board, 30 days prior to taking effect.
- r. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.
- s. The Permittee shall notify the Los Angeles Water Board Executive Officer 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, which may be toxic to aquatic life. Such notification shall include:
 - i. Name and general composition of the chemical,
 - ii. Frequency of use,

- iii. Quantities to be used,
 - iv. Proposed discharge concentrations, and
 - v. USEPA registration number, if applicable.
- t. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from the Carson WRP, 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.
- u. 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 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.
- v. 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, 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 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.
- w. CWC section 13385(h)(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable 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.”
- x. CWC section 13385(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation 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 period.
 - y. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, “effluent limitation” means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.
 - z. 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 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-7972 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the routine monitoring report.

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.

6.3. Special Provisions

6.3.1. Reopener Provisions

- a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan (Ocean Plan) water quality objective.
- b. This Order may be modified, in accordance with the provisions set forth in 40 CFR § 122 to 124, to include new minimum levels (MLs).
- c. The Los Angeles Water Board may modify or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
- d. This Order 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, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption and issuance. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- e. This Order 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).
- f. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:
 - i. Violation of any term or condition contained in this Order;
 - ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- g. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Los Angeles Water Board will modify this Order in accordance with such standards.

- h. This Order 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. Toxicity Reduction Requirements

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan in accordance with Monitoring and Reporting Program section 5.8.

b. Treatment Plant Capacity – Not Applicable

6.3.3. Best Management Practices and Pollution Prevention

a. Storm Water Pollution Prevention Plan (SWPPP)

The Carson WRP is regulated under the 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, 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 Carson WRP or the pipeline to the Warren Facility surge tower. 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 to determine 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; 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 may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

- i. An annual review and semi-annual monitoring of potential sources of the reportable 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 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 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.
- 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 Carson WRP, 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 Publicly Owned Treatment Works – Not Applicable

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 plant 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 will be determined as specified below:

7.1. General

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Los Angeles and State Water Boards, 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 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 to calculate and report a consecutive seven-day average value on Saturday.

7.5. Maximum Daily Effluent Limitation (MDEL)

If the initial grab sample exceeds the MDEL in a day, then the Discharger may initiate accelerated testing, consisting of a minimum of two additional grab samples during the remainder of the calendar day. The average (or median when any data is not detected (ND) or detected but not quantified (DNQ), see section 7.2 of the WDR) of all grab samples collected in one calendar day shall be used to determine compliance with the MDEL. When the median is used to determine compliance with the concentration-based MDEL, compliance with the mass-based MDEL shall be determined as the product of these three values: the maximum concentration detected (expressed in mg/L), the peak flow on that calendar day (expressed in MGD), and the 8.34 conversion factor.

If a daily discharge on a calendar day 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. 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-day 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.

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

where:

Ci = individual concentration of a dioxin or furan congener

TEFi = 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 |

| Congeners | MLs (pg/L) | TEFs |
|------------------------|------------|-------|
| 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 purposes 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 purposes 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, 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

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.

Not Detected (ND)

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)

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 CWA). 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, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Los Angeles Water Board 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 to which a sanitary sewer system is tributary.

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)

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.

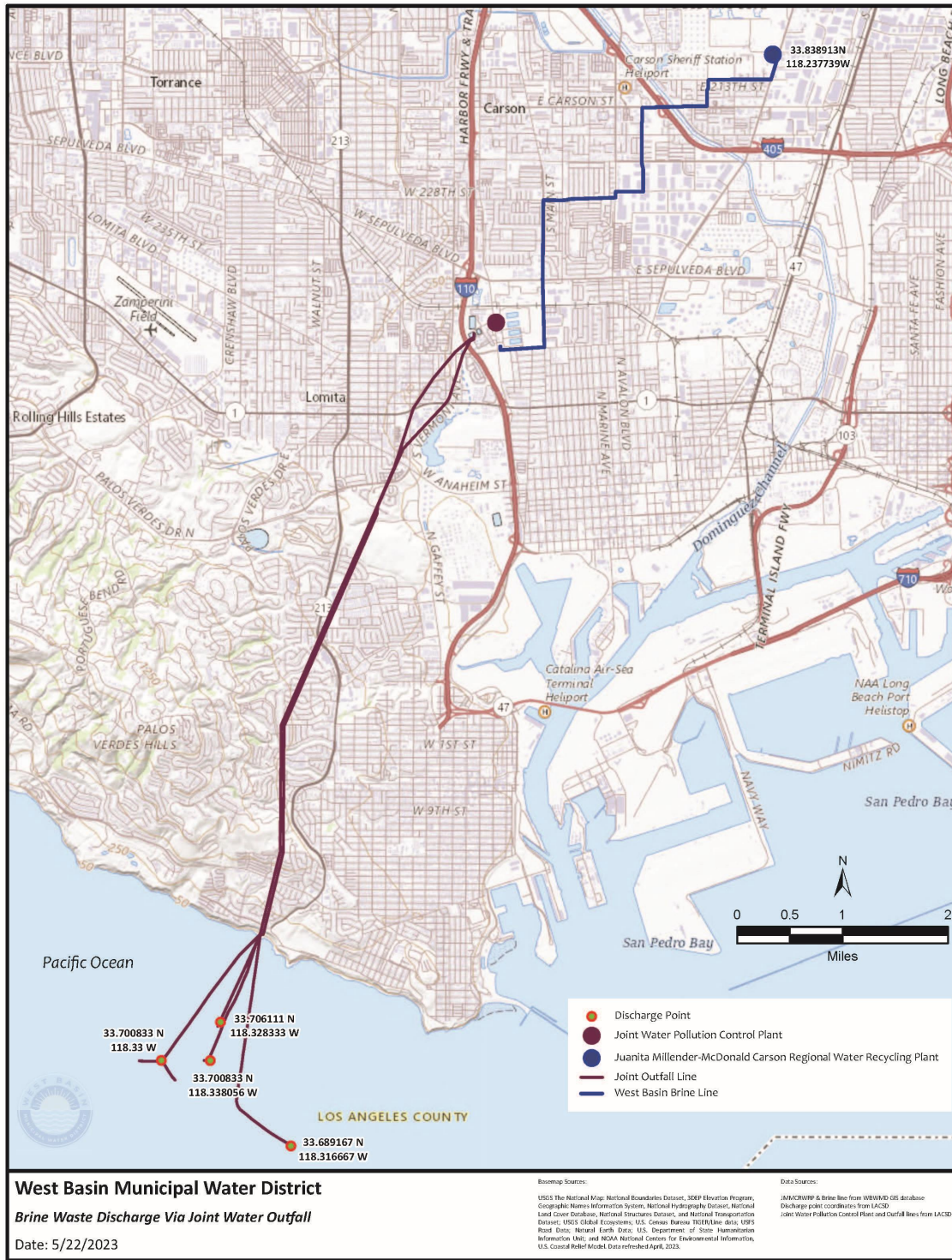
Waste

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.

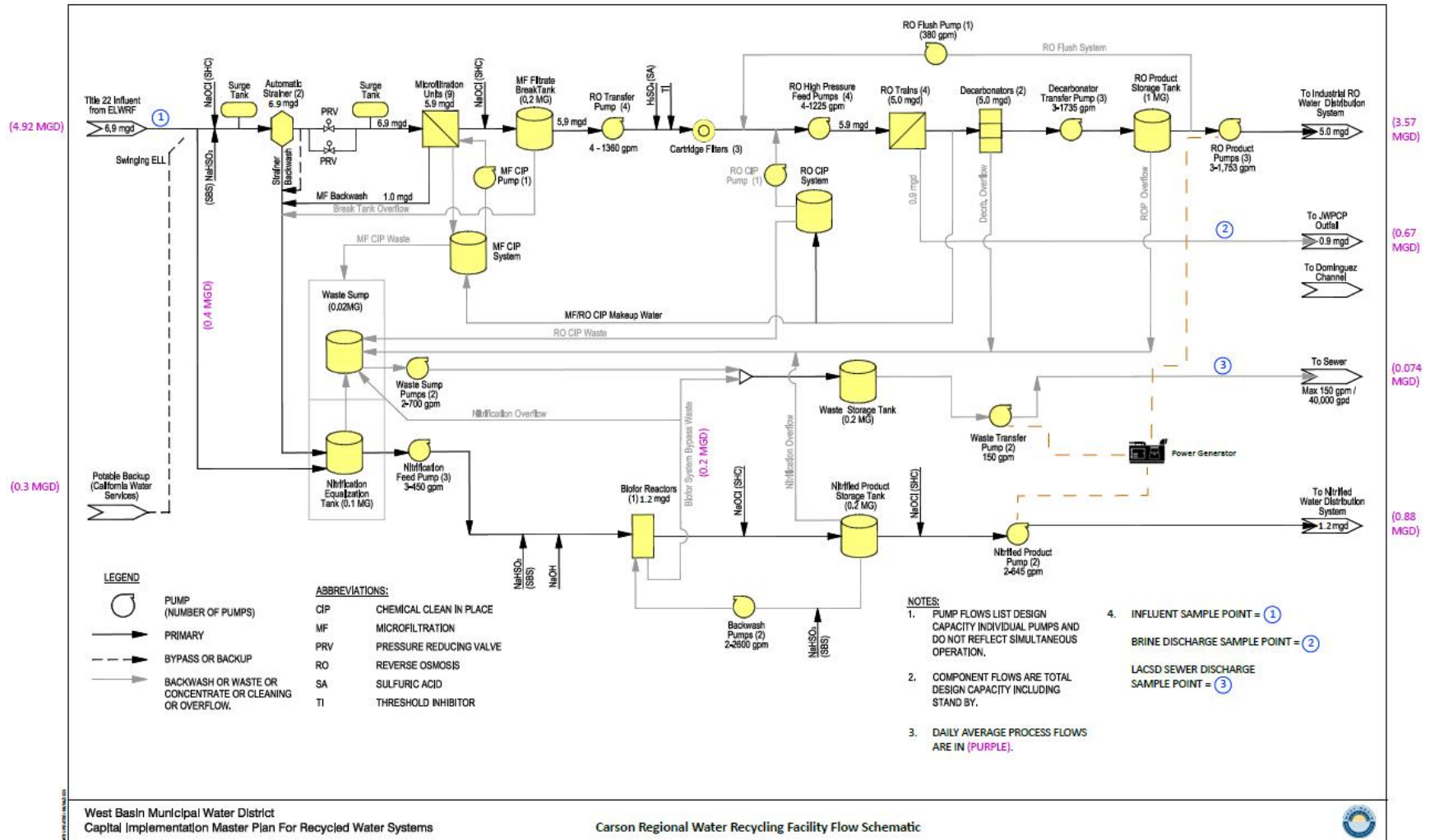
ATTACHMENT B1 – MAP OF CARSON WRP AREA AND OUTFALL



ATTACHMENT B 2 – SITE LAYOUT OF CARSON WRP



ATTACHMENT C – PROCESS FLOW DIAGRAM OF CARSON WRP



ATTACHMENT D– STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

1.1.1. The Discharger must comply with all terms, requirements, and conditions of this Order. 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 has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense

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

1.3. Duty to Mitigate

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

1.4. Proper Operation and Maintenance

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

1.5. Property Rights

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

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

1.6. Inspection and Entry

The Discharger shall allow the Los Angeles Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 USC. § 1318(a)(B); 40 CFR § 122.41(i); CWC, §§ 13267, 13383):

- 1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(i); 40 CFR § 122.41(i)(1); CWC, §§ 13267, 13383);
- 1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(2); CWC, §§ 13267, 13383);
- 1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(3); CWC, §§ 13267, 13383); and
- 1.6.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 USC § 1318(a)(B); 40 CFR § 122.41(i)(4); CWC, §§ 13267, 13383.)

1.7. Bypass

1.7.1. Definitions

- a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)
- b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production (40 CFR § 122.41(m)(1)(ii).)

1.7.2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to 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 may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

- a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));
- b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and
- c. The Discharger submitted notice to the Los Angeles Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

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

1.7.5. Notice

- a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Los Angeles Water Board. 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 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 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 may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance,

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

2.2. Duty to Reapply

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

2.3. Transfers

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

3. STANDARD PROVISIONS – MONITORING

- 3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)
- 3.2. Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:
 - 3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

3.2.2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N for the measured pollutant or pollutant parameter.

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

4. STANDARD PROVISIONS – RECORDS

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

4.2. Records of monitoring information shall include:

- 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 or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Los Angeles Water Board, State Water Board, or USEPA Region 9 copies of records required to be kept by this Order. (40 CFR § 122.41(h); CWC, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Los Angeles Water Board, State Water Board, and/or USEPA 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 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 CFR § 122.22(e).)

5.3. Monitoring Reports

- 5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)
- 5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Los Angeles Water Board, 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 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. (40 CFR § 122.41(l)(4)(iii).)

5.4. Compliance Schedules

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

5.5. Twenty-Four Hour Reporting

5.5.1. The 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. 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 electronically to the defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Los Angeles Water Board may also require the 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. (40 CFR § 122.41(l)(6)(ii)(A).)

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

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

5.6. Planned Changes

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

- 5.6.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or
- 5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)
- 5.6.3. The alteration or addition results in a significant change in the 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 of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2).)

5.8. Other Noncompliance

The 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 is authorized to enforce the terms of this Order 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-5. 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.
- 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 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 and full laboratory reports for each pollutant analyzed in its files, make them available for inspection, and submit this documentation with the Self-Monitoring Report (SMR). Proper chain of custody procedures must be followed, and a copy of this documentation shall be submitted with the quarterly 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 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. This record shall be made available to the Los Angeles Water Board 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 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.

- 1.13. This monitoring program for Carson WRP 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. 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 | Composite sampling station of the disinfected tertiary recycled water produced at E.C. Little Water Recycling Facility where the flow enters the Carson WRP prior to additional treatment at the Carson WRP (33.839138°N, 118.237105°W) |
| 001 002 003 004 | EFF-001 | The effluent sampling station (33.838611°N, 118.237222°W) is located at the southeast side of the RO treatment train at the Carson WRP before comingling with effluent from the A.K. Warren Water Resource Facility (Warren Facility). |

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 Carson WRP at INF-001 as follows in Table E-2. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

Table E-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 | Quarterly | --- |

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 |
| Oil and Grease | mg/L | Grab | Monthly | b, d |
| Temperature | °F | Grab | Monthly | b |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Notes |
|---|------------------------------|-------------------|----------------------------|---------|
| Settleable Solids | mL/L | Grab | Monthly | b, d |
| Turbidity | NTU | Grab | Monthly | b |
| Ammonia (as N) | mg/L | 24-hr composite | Quarterly | c |
| Total Kjeldahl Nitrogen | mg/L | 24-hr composite | Quarterly | c |
| Nitrate nitrogen | mg/L | 24-hr composite | Quarterly | c |
| Nitrite nitrogen | mg/L | 24-hr composite | Quarterly | c |
| Organic nitrogen | mg/L | Calculated | Quarterly | -- |
| Total nitrogen | mg/L | Calculated | Quarterly | -- |
| Salinity | % | 24-hour composite | Monthly | b |
| Chlorine Residual | µg/L | Grab | Quarterly | c |
| Arsenic | µg/L | 24-hr composite | Quarterly | c, e |
| Cadmium | µg/L | 24-hr composite | Quarterly | c, e |
| Chromium (VI) | µg/L | Grab | Quarterly | e |
| Copper | µg/L | 24-hr composite | Quarterly | c, e |
| Lead | µg/L | 24-hr composite | Quarterly | c, e |
| Mercury | µg/L | 24-hr composite | Semiannually | c, e, f |
| Nickel | µg/L | 24-hr composite | Quarterly | c, e |
| Selenium | µg/L | 24-hr composite | Quarterly | c, e |
| Silver | µg/L | 24-hr composite | Quarterly | c, e |
| Zinc | µg/L | 24-hr composite | Quarterly | c, e |
| Cyanide, Total | µg/L | Grab | Quarterly | --- |
| Toxicity, Chronic Topsmelt, <i>Atherinops affinis</i> Survival and Growth | 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 |
| Endosulfans | µg/L | 24-hr composite | Semiannually | c, h |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Notes |
|--|-------|-----------------|----------------------------|---------|
| 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 |
| Antimony | µg/L | 24-hr composite | Quarterly | c |
| Chromium (III) | µg/L | Calculated | Quarterly | --- |
| Di-n-butyl phthalate | µg/L | 24-hr composite | Quarterly | c |
| Dichlorobenzenes (BNA) | µg/L | 24-hr composite | Semiannually | c, h |
| Dimethyl Phthalate | µg/L | 24-hr composite | Quarterly | c |
| Thallium | µg/L | 24-hr composite | Quarterly | c |
| Toluene | µg/L | Grab | Quarterly | --- |
| Tributyltin | µg/L | 24-hr composite | Quarterly | c |
| Beryllium | µg/L | 24-hr composite | Quarterly | c |
| Bis (2-ethylhexyl) phthalate | µg/L | 24-hr composite | Quarterly | c |
| Carbon Tetrachloride | µg/L | Grab | Quarterly | --- |
| Chlordane | µg/L | 24-hr composite | Semiannually | c, h |
| Chlorodibromomethane | µg/L | Grab | Quarterly | --- |
| Chloroform | µg/L | Grab | Quarterly | --- |
| DDT | µg/L | 24-hr composite | Semiannually | c, h |
| 1,4-dichlorobenzene (BNA) | µg/L | 24-hr composite | Semiannually | c, h |
| Dichlorobromomethane | µg/L | Grab | Quarterly | --- |
| Dichloromethane | µg/L | Grab | Quarterly | --- |
| Halomethanes | µg/L | Grab | Quarterly | h |
| Heptachlor | µg/L | 24-hr composite | Quarterly | c |
| N-Nitrosodimethylamine | µg/L | 24-hr composite | Quarterly | 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 | Annually | c, h, i |
| TCDD Equivalent | pg/L | 24-hr composite | Semiannually | c, h, j |
| Tetrachloroethylene | µg/L | Grab | Quarterly | --- |
| 2,4,6-Trichlorophenol | µg/L | 24-hr composite | Quarterly | c |
| Total Chromium | µg/L | Grab | Quarterly | e |

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Notes |
|--|-------|--------------------------------|----------------------------|-------|
| Remaining pollutants in Ocean Plan Table 3 | µg/L | 24-hr composite; grab for VOCs | Semiannually | c |

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

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 Points 001 and 002 is 0.5988 percent combined effluent, for Discharge Point 003 is 0.6623 percent combined effluent, and for Discharge Point 004 is 0.8621 percent combined effluent. This combined effluent sample for chronic toxicity testing is a manual composite consisting of 0.59 percent Carson WRP brine effluent and 99.41 percent A.K. Warren Water Resource Facility (Warren Facility) secondary effluent collected on the same day.

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 tests. 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 IWC for the discharge, in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). The dilution series shall consist of aliquots of the sample containing 0.59% Carson WRP brine and 99.41% Warren Facility secondary effluent (based on flows shown in Table F-2 of the Factsheet). An additional set of replicates of Carson WRP brine in control water (containing 0.59% of the IWC) shall be tested alongside the dilution series to test the toxicity of the brine without interference from the Warren Facility effluent. The same brine sample shall be used in both the dilution series and in the replicates containing only brine and control water. The brine sample used for toxicity testing and other parameters specified in Table E-3 of the MRP (Attachment E) shall be collected concurrently. 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 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 Embryo-Larval Development Test Method), 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 Joint Outfall System/Los Angeles County Sanitation Districts to collect effluent samples from the Carson WRP and Warren Facility 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 Carson WRP 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 by the Los Angeles Water Board in the August 2021 species sensitivity screening, topmelt, *Atherinops affinis* shall be used for the toxicity testing until a new species sensitivity screening is conducted. Toxicity testing for red abalone must be conducted when red abalone is more likely to spawn (January to June). If a successful test cannot be conducted with red abalone, an alternative invertebrate species, purple sea urchin (*Strongylocentrotus purpuratus*) or the sand dollar (*Dendraster excentricus*), may be used.

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 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-4 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 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 the following routine monitoring report.

Table E-4. 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- μm -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 for approval within 90 days of the effective date of this Order. If the Executive Officer 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 Joint Outfall System, intends to follow if toxicity is detected in the combined discharge. At a minimum, the work plan shall include:

- a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;
- b. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; 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 0.5988%), 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. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

5.8. Toxicity Reduction Evaluation (TRE) Process

The Discharger shall, in coordination with the Joint Outfall System, conduct a TRE in accordance with a TRE Work Plan as approved by the Los Angeles Water Board. 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 a detailed TRE Work Plan, developed in coordination with the Joint Outfall System, 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:

- 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.
- 5.8.5. The Los Angeles Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. However, the TRE shall be carried out in accordance with the Executive Officer-approved TRE Work Plan.
- 5.8.6. The Los Angeles Water Board may consider the results of any TIE/TRE studies in an enforcement action.

5.9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter 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 (0.5988%), 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-5.
- 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 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.

5.10. Ammonia Removal

5.10.1. Except with prior approval from the Executive Officer of the Los Angeles Water Board, ammonia shall not be removed from bioassay samples. The Permittee must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not by other toxicants before the Executive Officer would allow for control of pH in the test.

- 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.

5.11. Chlorine Removal

Except with prior approval from the Los Angeles Water Board Executive Officer, 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 (NOT APPLICABLE)

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 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.

- 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 well in advance of any proposed construction or maintenance activity, or modification to the Carson WRP 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 parameter in the specified matrix 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 Carson WRP brine effluent are generally higher than effluent limitations or water quality objectives for DDT and PCBs. 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 where 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.
- 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; 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 during any 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. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reported data shall be 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:

Table E- 5. Monitoring Periods and Reporting Schedule

| Sampling Frequency | Monitoring Period Begins on | Monitoring Period | SMR Due Date |
|---------------------------------|---|---|--|
| Continuously | Order effective date | All | Submit with quarterly SMR |
| Monthly | First day of calendar month following permit effective date or on Order 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 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 effective date | January 1 to June 30 July 1 to December 31 | September 15 March 15 |
| Annually | January 1 following (or on) Order effective date | January 1 through December 31 | April 30 |
| Annually (volumetric reporting) | Order 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 7 of this Order. For purposes of reporting and administrative enforcement by the Los Angeles Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the 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 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 6.3. of this Order. 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 in accordance with the requirements described in MRP subsection 10.2.3 above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether reasonable potential was triggered for pollutants that 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, 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 Permittee is required to file with the Los Angeles Water Board, within 90 days after the effective date of this Order, 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.

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 for approval within 90 days of the effective date of this Order. If the Executive Officer does 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. 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.

ATTACHMENT F – FACT SHEET
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ATTACHMENT F – FACT SHEET

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

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F- 1. Facility Information

| | |
|---|---|
| WDID | 4B190137004 |
| Discharger | West Basin Municipal Water District |
| Current Operator | Veolia North America |
| Name of Facility | Juanita Millender-McDonald Carson Regional Water Recycling Plant (Carson WRP) |
| Facility Address | 21029 South Wilmington Avenue Carson, CA 90810 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 | 1.2 million gallons per day (MGD) of brine waste |
| Facility Design Flow | 1.2 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 Juanita Millender-McDonald Carson Regional Water Recycling Plant (Facility or Carson WRP), an advanced water treatment facility producing recycled water from tertiary-treated effluent from the Edward C. Little Water Recycling Facility. The Los Angeles Water Board has classified the Carson WRP 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, 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 Carson WRP discharges reverse osmosis brine waste to the Pacific Ocean, a water of the United States, via A.K. Warren Water Resource Facility (Warren Facility) outfalls. The Discharger was previously regulated by Order No. R4-2018-0090 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0064246 adopted on June 14, 2018 and expired on August 31, 2023.

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 limit 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 May 25, 2023. Supplemental information was requested on June 19, 2023 and received on July 20, 2023 and September 18, 2023. The application was deemed complete on September 27, 2023. A site visit was conducted on December 5, 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 administratively extended and remain in effect until the new WDRs and NPDES permit are adopted pursuant to this Order. Attachment B1 provides a map of the area around the Carson WRP, Attachment B2 provides a site layout of the Carson WRP, and Attachment C provides a flow schematic of the Carson WRP.

- 1.3. **Dilution Credits.** The brine waste effluent discharged from the Carson WRP first combines with secondary effluent from the Joint Outfall System’s (JOS) Warren Facility’s effluent at the surge tower (33.799667°N, 118.287361°W) and the combined effluent travels approximately six miles through tunnels prior to discharging into the Pacific Ocean via the Warren Facility’s four outfalls. There are two separate points of dilution for each outfall: 1) the point at which the effluent meets the Warren Facility secondary effluent within the pipe and 2) the point of Initial Dilution at which the combined effluent meets the receiving ocean

water as defined in Appendix I of the Ocean Plan. Table F-2 identifies the appropriate dilution ratios for each outfall corresponding to both the design capacity and the critical condition (minimum effluent flow recorded between October 2017 and March 2023 (202 MGD) at the Warren Facility). Under critical conditions in the Warren Facility outfall (lowest monthly average flow from the Warren Facility and the highest Carson WRP brine flow), 0.59 percent of the combined effluent flow is from the Carson WRP discharge and 99.41 percent of the combined effluent flow rate is from the Warren Facility discharge.

All effluent from the Warren Facility travels through two tunnels under the Palos Verdes Peninsula to the Pacific Ocean shoreline, where an underground manifold system of valves connects the tunnels to four ocean outfalls. The manifold and the starting point for the four outfalls are located near White Point on the Palos Verdes Peninsula. The 120-inch outfall (001) lies to the south of the manifold and continuously discharges approximately 65% of the combined effluent. The 90-inch outfall (002) lies southwest of the manifold and continuously discharges approximately 35% of the combined effluent. The 72-inch outfall (003) is located between the 120-inch and 90-inch outfalls and is used during times of heavy rains to provide hydraulic relief to the outfall system. The 60-inch outfall (004) is also located between the 120-inch and 90-inch outfalls and serves as a standby outfall to provide additional hydraulic relief during the heaviest flows. All four of these outfalls terminate in diffuser sections that contain multiple ports with opposing discharge direction from a minimum diffuser depth of 100 feet for the 60-inch outfall to the maximum diffuser depth of 210 feet at the end of the 90-inch outfall. The diffusers lie at the outer edge of a narrow shelf offshore of the Palos Verdes Peninsula.

The most recent dilution study submitted in 2016 used water quality data from 2001 to 2011. Since there have not been any significant changes to the quality of the Warren Facility discharge or the ambient conditions since the dilution study was conducted, this Order carries over the same dilution ratios included in Carson WRP's 2018 NPDES Permit, Order No. R4-2018-0090, to calculate the dilution of the second mixing event: a dilution ratio of 166:1 for Discharge Points 001 and 002, a dilution ratio of 1:150 for Discharge Point 003, and a dilution ratio of 1:115 for Discharge Point 004. These are the same dilution ratios included in the most recent Warren Facility NPDES permits, Orders No. R4-2017-0180 and No. R4-2023-0181. The dilution ratios for the first and second mixing events are summarized in Table F-2. These ratios were used to determine reasonable potential and to calculate effluent limitations for nonconventional and toxic pollutants in this Order.

Table F-2. Dilution Ratios and Brine Percentages

| Outfall | Mixing Events | Dilution Ratio | Percentage Brine Waste in Mixture |
|--------------------------|--|---|-----------------------------------|
| 001 002 003 004 | <u>First mixing event (design flow)</u> : Carson WRP brine waste combines with Warren Facility secondary effluent within discharge pipe | 1.2 MGD : 385 MGD (Total = 386.2 MGD) | 0.31% |
| 001 002 | <u>Second mixing event (design flow)</u> : Combined Carson WRP brine waste and Warren Facility secondary effluent enters Pacific Ocean | 1.2 MGD : [386.2 x (166+1)] ≅ 1 : 53,750 | 0.0019% |
| 003 | <u>Second mixing event (design flow)</u> : Combined Carson WRP brine waste and Warren Facility secondary effluent enters Pacific Ocean | 1.2 MGD : [386.2 x (150+1)] ≅ 1 : 48,600 | 0.0021% |
| 004 | <u>Second mixing event (design flow)</u> : Combined Carson WRP brine waste and Warren Facility secondary effluent enters Pacific Ocean | 1.2 MGD : [386.2 x (115+1)] ≅ 1 : 37,330 | 0.0027% |
| 001 002 003 004 | <u>First mixing event (critical flow)</u> : Carson WRP brine waste combines with Warren Facility secondary effluent within discharge pipe | 1.2 MGD : 202 MGD (Total = 203.2 MGD) | 0.59% |

| Outfall | Mixing Events | Dilution Ratio | Percentage Brine Waste in Mixture |
|------------|--|---------------------------------------|-----------------------------------|
| 001 002 | <u>Second mixing event (critical flow):</u> Combined Carson WRP brine waste and Warren Facility secondary effluent enters the Pacific Ocean | 1.2 : [202 x (166+1)] ≅ 1 : 33,700 | 0.0030% |
| 003 | <u>Second mixing event (critical flow):</u> Combined Carson WRP brine waste and Warren Facility secondary effluent enters the Pacific Ocean | 1.2 : [202 x (150+1)] ≅ 1 : 30,500 | 0.0033% |
| 004 | <u>Second mixing event (critical flow):</u> Combined Carson WRP brine waste and Warren Facility secondary effluent enters the Pacific Ocean | 1.2 : [202 x (115+1)] ≅ 1 : 23,400 | 0.0043% |

2. FACILITY DESCRIPTION

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Discharger is a public agency that provides wholesale water to local utility companies and municipal water departments within its service area. The Discharger provides potable water and recycled water to 17 cities and unincorporated areas of southwest Los Angeles County. The Carson WRP is owned by the Discharger and is located at 21029 South Wilmington Avenue, Carson, California. The Carson WRP provides advanced treatment of disinfected tertiary recycled water produced at the Discharger’s Edward C. Little Water Recycling Facility (ECLWRF), located approximately 10 miles northwest of the Carson WRP. The influent to ECLWRF is secondary-treated wastewater from the Hyperion Water Reclamation Plant (Hyperion WRP). The disinfected tertiary recycled water from ECLWRF is also used at schools, golf courses, parks, medians, and dual plumbed systems throughout the district before reaching the Carson WRP. The disinfected tertiary recycled water is continuously treated by microfiltration and reverse osmosis for refinery boiler feed, or by nitrification at the Carson WRP for refinery cooling towers. The reverse osmosis brine is the only waste stream produced at the Carson WRP that discharges to the Pacific

Ocean (see section 2.2 of Attachment F for detailed information), via the Warren Facility outfalls, a water of the United States. All other wastes from the treatment processes at the Carson WRP are discharged to the sanitary sewer.

The Carson WRP currently has a total design treatment capacity of 7.15 MGD and consists of two treatment trains. The first treatment train produces approximately 5 MGD advanced-treated recycled water by treating disinfected tertiary recycled water from the ECLWRF with microfiltration (MF), reverse osmosis (RO), and decarbonation. Approximately 0.9 MGD of reverse osmosis brine is produced during this process and is discharged to the ocean. This design flow of brine only accounts for the use of three out of four RO trains and does not include future refinery demands expected within the next five years. The increase in production with all four RO trains in service would equate to 1.2 MGD of brine discharge. The permeate (recycled water produced from the RO process) is used for boiler feed water or mixed with nitrified water for use in cooling towers at the Marathon Refinery, located approximately 1.15 miles south of the Carson WRP. The second treatment train produces approximately 1.25 MGD nitrified recycled water by treating disinfected tertiary recycled water from ECLWRF by using nitrification in a Biofor® biofiltration system and break-point chlorination. The recycled water from the nitrification system is used for cooling towers at the Marathon Refinery. The other waste streams produced at the Carson WRP are discharged to the sanitary sewer. Biosolids are only processed at ECLWRF, not at the Carson WRP. Since the Carson WRP only processes disinfected tertiary recycled water, biosolids requirements are not included in this Order.

Water Reclamation. The Carson WRP 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. Since the Carson WRP has separate regulatory coverage for these discharges, requirements related to the production and use of recycled water (besides volumetric reporting) are not included in this Order.

2.2. Discharge Points and Receiving Waters

Reverse osmosis brine waste produced at the Carson WRP is discharged to a brine line that leads to the Warren Facility's surge tower, approximately four miles southwest of the Carson WRP. The brine immediately commingles with the Warren Facility's secondary effluent and the combined effluent exits the pipeline through the Warren Facility's Discharge Points 001, 002, 003, and 004. These four discharge points are located at White Point off the Palos Verdes Peninsula. Discharge Points 001 and 002 are routinely used to discharge secondary-treated wastewater and brine waste. Discharge Point 003 is used only during times of heavy rains to provide hydraulic relief to the system. Discharge Point 004 serves

as a standby outfall to provide additional hydraulic relief during extremely high flows.

During periods of heavy rainfall and flooding when the flow at the Warren Facility exceeds the capacity of its outfalls, the Discharger has the infrastructure to bypass the Warren Facility’s outfalls and direct the brine to the Dominguez Channel. This Order prohibits the discharge of brine waste to the Dominguez Channel and if the Discharger is unable to use the Warren Facility’s outfalls or store the brine until the outfalls are available, the Discharger will shut down operations until the brine can be properly disposed.

Discharge Points 001, 002, 003, and 004 in this Order correspond to the discharge points in the Warren Facility NPDES permit Order No. R4-2023-0181. The table below provides a description of the four Warren Facility discharge points.

Table F-3. Discharge Point Descriptions

| Discharge Point | Description |
|------------------------|---|
| 001 | <p>White Point 120-inch ocean outfall (Latitude 33.6892°N, Longitude 118.3167°W)</p> <p>This outfall routinely discharges approximately 65% of the combined effluent from the Carson WRP and the Warren Facility. It discharges south of the shoreline of White Point, San Pedro. The outfall is 7,440 feet long to the beginning of a single L-shaped diffuser leg, which is 4,440 feet long. Depth at the beginning of the diffuser is 167 feet and at the end of the diffuser is 190 feet.</p> |
| 002 | <p>White Point 90-inch ocean outfall (Latitude 33.7008°N, Longitude 118.3381°W)</p> <p>This outfall routinely discharges approximately 35% of the combined effluent from the Carson WRP and the Warren Facility. It discharges southwest of the shoreline of White Point, San Pedro. The outfall is 7,982 feet long to the beginning of a Y-shaped diffuser with 2 legs. Each leg is 1,208 feet long. Depth at the beginning of the diffuser is 196 feet and at the end of the diffuser is 210 feet.</p> |

| Discharge Point | Description |
|------------------------|--|
| 003 | <p>White Point 72-inch ocean outfall (Latitude 33.7008°N, Longitude 118.3300°W)</p> <p>This outfall is used only during times of heavy rains to provide hydraulic relief in the outfall system. When used, it discharges off the White Point Shoreline between Discharge Points 001 and 002, and about 160 feet below the ocean surface. The outfall is about 6,500 feet long and connects to a diffuser with two legs, each approximately 200 feet long.</p> |
| 004 | <p>White Point 60-inch ocean outfall (Latitude 33.7061°N, Longitude 118.3283°W)</p> <p>This is a standby outfall to provide additional hydraulic relief during the heaviest flows. When used, it discharges off the White Point shoreline between outfalls 002 and 003, and about 110 feet below the ocean surface. The outfall is about 5,000 feet long and connected to a single, very short diffuser.</p> |

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

Effluent limitations contained in the existing Order for discharges from Discharge Points 001, 002, 003, and 004 (Monitoring Location EFF-001) and representative monitoring data from October 2017 to March 2023 are included in Table F-4 below.

Table F- 4. Effluent Limitations in Order Number R4-2018-0090 and Historical Monitoring Data at EFF-001

| Parameter | Units | Annual Average Effluent Limit | Average Monthly Effluent Limit | Average Weekly Effluent Limit | Instantaneous Maximum Effluent Limit | Maximum Monthly Average Reported | Maximum Weekly Average Reported | Instantaneous Maximum Reported | Notes |
|------------------------------|-------|-------------------------------|--------------------------------|-------------------------------|--------------------------------------|----------------------------------|---------------------------------|--------------------------------|-------|
| Total Suspended Solids (TSS) | mg/L | -- | 60 | -- | -- | 2 | -- | -- | -- |
| pH | S.U. | -- | -- | -- | 6.0 - 9.0 | -- | -- | 7.2 – 7.9 | -- |
| Temperature | °F | -- | -- | -- | 100 | -- | -- | 89.2 | -- |
| Oil and Grease | mg/L | -- | 25 | 40 | 75 | 7 | 7 | 7 | -- |
| Settleable Solids | mL/L | -- | 1.0 | 1.5 | 3.0 | <0.1 | <0.1 | <0.1 | -- |
| Turbidity | NTU | -- | 75 | 100 | 225 | 0.8 | 0.8 | 0.8 | -- |
| DDT | g/yr | 10.1 * Q | -- | -- | -- | <0.50 µg/L | -- | -- | a |
| PCBs Aroclors | g/yr | 0.271 * Q | -- | -- | -- | <20 µg/L | -- | -- | a |

WEST BASIN MUNICIPAL WATER
DISTRICT
JUANITA MILLENDER-MCDONALD
CARSON REGIONAL WATER
RECYCLING PLANT

ORDER NO. R4-2024-00XX

NPDES NO. CA0063401

Footnotes for Table F-4

- a. The annual average effluent limit shown for DDT and PCBs Aroclors is based on the WLA for the Carson WRP in the Santa Monica Bay TMDL for DDTs and PCBs. For DDT, the WLA is 10.1 ng/L (the WLA concentration for Hyperion WRP) $\times Q$ (the flow diverted from the Hyperion WRP to Carson WRP). For PCBs aroclors, the WLA is 0.271 (the WLA concentration for Hyperion WRP) $\times Q$ (the flow diverted from Hyperion WRP to Carson). 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-4

2.4. Compliance Summary

The Discharger complied with all effluent limitations during the previous permit term.

2.5. Planned Changes

To increase microfiltration treatment capacity, the installation of custom engineered microfiltration systems began in June 2021 as a part of the Phase II Expansion Project. The new microfiltration systems will improve system redundancy and service reliability by enhancing microfiltration treatment capability, and allowing for cleaning, backwash and down time during treatment processes while still maintaining production. The new system is expected to be operational in December 2023 and will not increase brine flow beyond the permitted flow of 1.2 MGD.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

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

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. Additionally, the Facility is exempt from CEQA pursuant to 14 Cal. Code Reg. § 15301, Existing Facilities.

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 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 No. 405.12) | Point Vicente Beach Royal Palms Beach White Point Beach | <u>Existing:</u> Navigation (NAV); water contact (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); and shellfish harvesting (SHELL). <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, 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 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 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 |
|--------------------------|-----------------|--|
| 001 002 003 004 | 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 implement the Ocean Plan.

3.3.4. Santa Monica Bay Comprehensive Conservation Management Plan.

The Carson WRP discharges through the Warren Facility 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 Warren Facility, 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 contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. 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 specified in Table 4 of the Ocean Plan, which applies to POTWs and industrial discharges for which there are no established effluent limit guidelines. 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 Carson WRP 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, TBELs for BOD₅20°C and percent removal of BOD₅20°C and TSS are not included in this Order. Note, however, that the influent water is disinfected tertiary recycled water which has already met those requirements through compliance with Hyperion WRP Order No. R4-2023-0033, which incorporates applicable federal technology-based requirements for secondary treated wastewater.

WQBELs are 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.

WQBELs for DDT and PCBs as aroclors have also been established through the *Santa Monica Bay TMDL for DDTs and PCBs*. Details can be found in section 3.4.4.c., 4.3.4., and 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 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 is discussed in detail in section 4.4.1 of this Fact Sheet.

- 3.3.9. **Endangered Species Act (ESA) Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the federal Endangered Species Act (16 USCA §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare and endangered species. The Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.
- 3.3.10. **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.
- 3.3.11. **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 (effective 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 implements the Recycled Water Policy by incorporating the volumetric monitoring and reporting

requirements in section 3 of the [Recycled Water Policy](#) and Order WQ 2019-0037-EXEC in Section 9.2 of the MRP in this Order. Therefore, the State Water Board's Order WQ 2019-0037-EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

- 3.3.12. **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.
- 3.3.13. **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 has also included in this Order Special Provisions applicable to the Permittee. The rationale for the Special Provisions contained in this Order is provided in section 6 in this Fact Sheet.
- 3.3.14. **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](#) 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 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 DDTs 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, Polices 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 contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Board resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer's approval no later than 12 months after the effective date of this Order. The Climate Change Plan shall include an assessment of short- and long-term vulnerabilities of 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, 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).

Stormwater from the Carson WRP discharges to the Dominguez Channel. The Discharger filed a Notice of Intent to enroll the Carson WRP in the Industrial General Permit on May 23, 2018 and is assigned WDID No. 4 19I027802 497973. Therefore, stormwater discharges are not regulated in this Order.

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 Warren Facility, are assigned a waste load allocation (WLA)

expressed as a receiving water narrative limitation in the TMDL because they discharge directly to Santa Monica Bay. Since the Carson WRP discharges to the Warren Facility's outfalls, the narrative receiving water limitation also applies to the Carson WRP. As such, the WLA in Chapter 7-4 of the Basin Plan for the Hyperion WRP and the Warren Facility is also incorporated into this Order.

In these TMDLs, the Warren Facility 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. The Warren Facility'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.
- 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 Carson WRP is identified as a responsible jurisdiction in this TMDL and as such, the TMDL sets Average Annual WLAs for DDT and PCBs for the Carson WRP. However, the TMDL specifically states that concentration-based waste

load allocations are not applicable to the Carson WRP. To account for DDT and PCBs mass transfer that occurs when a portion of Hyperion WRP's secondary effluent wastewater is redirected to the Carson WRP but avoid double counting pollutant loads, "floating" mass-based WLAs are assigned to the Carson WRP. 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.** 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. 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 an alternative compliance path, time schedule, or variance, nor will this Order have disproportionate impacts on water quality in disadvantaged or tribal communities because there are no disadvantaged or tribal communities in the immediate vicinity of the discharge points. 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

Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Permittee to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level (referred to as “secondary treatment”) that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of BOD₅20°C, TSS, and pH. Since this facility treats tertiary-treated wastewater from the EC Little WRP and the discharge is brine, secondary treatment standards do not apply to this discharge. As such, effluent limitations have been set for oil and grease, suspended solids, settleable solids, turbidity, and pH consistent with the effluent limitations in Table 4 of the Ocean Plan, which apply to POTWs with no established effluent limitation guidelines.

4.2.2. Applicable Technology-Based Effluent Limitations

The technology-based effluent limitations in this Order 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. 40 CFR § 122.45(d) requires this facility to have final effluent limitations expressed as both average monthly and maximum daily, unless impracticable. However, this Order includes three averaging periods, rather than just two: average monthly, average weekly, and instantaneous maximum final effluent limitations, consistent with the Ocean Plan. It is impracticable to have a maximum daily effluent limitation for these pollutants because the Ocean Plan requires that maximum daily effluent limitations apply to 24-hour composite samples and grab samples are more representative for these parameters due to their short holding time and the ability of solids to adhere to sampling equipment. The instantaneous maximum effluent limitations are also more stringent than the maximum daily effluent limitations, therefore the instantaneous maximum effluent limitations satisfy the federal requirement.

Table F- 7. TBELs established by the Ocean Plan

| Parameter | Units | AMEL | AWEL | Instan. Min. | Instan. Max | Note |
|------------------------|---------|------|------|--------------|-------------|------|
| Oil & Grease | mg/L | 25 | 40 | -- | 75 | -- |
| 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. Since the influent is disinfected tertiary recycled water from ECLWRF and the effluent from the Carson WRP is brine, requiring 75% TSS removal efficiency is not appropriate for the Carson WRP. As permitted in section III.B of the Ocean Plan, since the monthly effluent limitation included in this Order for TSS is 60 mg/L, the Discharger is not required to remove 75% of suspended solids from the influent stream before discharging to the ocean. All other effluent limitations established in the Ocean Plan have been included in the Order.

End of footnote for Table F-7

All technology-based effluent limitations from Order Number R4-2018-0090 for Total Suspended Solids (TSS), oil and grease, settleable solids,

pH, and turbidity are retained in this Order. 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 1.2 MGD.

The following table summarizes the TBELs for discharges from Carson WRP:

Table F-8. Summary of TBELs for the Carson WRP

| Parameter | Units | AMEL | AWEL | Instan. Min. | Instan. Max. | Note |
|-------------------|---------|------|------|--------------|--------------|------|
| Oil and Grease | mg/L | 25 | 40 | -- | 75 | -- |
| Oil and Grease | lbs/day | 250 | 400 | -- | 750 | a |
| TSS | mg/L | 60 | -- | -- | -- | -- |
| TSS | lbs/day | 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 1.2 MGD, consistent with the water quality-based limits in the previous permits: lbs/day = 8.34 x C_e (effluent concentration, mg/L) x 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 as either final effluent limitations (based on reasonable potential) or receiving water limitations.

4.3.3. Expression of WQBELs

The WQBELs for toxic pollutants to protect marine aquatic life contained in this Order 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 R4-2018-0090 contains effluent limitations for non-conventional and toxic pollutant parameters based on Table 1 of the 2015 Ocean Plan. For this Order, 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, 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 UCB95/95 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 staff used RPcalc 2.2 to calculate reasonable potential using the procedure described above. The analysis included effluent data provided by the Permittee from October 2017 to March 2023. The analysis first evaluated reasonable potential of the brine effluent only mixing in the ocean (i.e., using a minimum dilution ratio of 166:1 for Discharge Points 001 and 002, 150:1 for Discharge Point 003, and 115:1 for Discharge Point 004. If a pollutant exhibited reasonable potential for the ocean mixing event, another analysis was conducted to evaluate reasonable potential after mixing with both the Warren Facility's effluent within the discharge pipe and the ocean. For Discharge Points 001 and 002, the minimum dilution ratio of 33,700:1 was used and for Discharge Points 003 and 004, dilution ratios 30,500:1 and 23,400:1 were used, respectively (see section 1.3 of the Fact Sheet for dilution ratio calculations). Based on both mixing events, no constituents showed reasonable potential to exceed the Ocean Plan water quality objectives. There were 13 constituents that had inconclusive reasonable potential results. Effluent limits for these constituents are not established in this Order, but monitoring requirements for these pollutants were retained from the prior permit. 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.

The Los Angeles Water Board 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*.

4.3.5. WQBEL Calculations

The Carson WRP brine effluent undergoes two mixing events during discharge to the Pacific Ocean. The first mixing event occurs when the Carson WRP brine and Warren Facility effluents combine and mix inside the discharge pipeline. The second mixing event occurs during the actual discharge to the Pacific Ocean through the diffuser of the ocean outfall. Because the brine from the Facility undergoes two mixing events during its discharge, both mixing events must be considered when determining reasonable potential and developing effluent limitations. See section 1.3 of this Fact Sheet for additional information on the dilution ratios used in this Order. The process of calculating WQBELs is included below but no additional WQBELs were required to be calculated based on the reasonable potential analysis.

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, the 166:1 dilution ratio is applied to Discharge Points 001 and 002, the two discharge points used during normal operation.

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.

First Mixing Event Calculation – Dilution in the Warren Facility Effluent Pipeline

Additional dilution takes place when the brine from the Carson WRP and the Warren Facility effluent combine and mix inside the Warren Facility discharge pipeline. Calculation of the dilution is dependent on the effluent concentrations and flow data for the Warren Facility and maximum design capacity for the Facility (see section 1.3 of this Fact Sheet).

The Warren Facility’s lowest monthly average flow between October 2017 and March 2023 (202 MGD) and the Facility’s maximum discharge flow value (1.2 MGD) have been used to represent the worst-case flow scenario during the first mixing event. The dilution factor is $202/1.2 = 168$. The final effluent limitations for this Facility are calculated using the same equation as above but making C_o equal to the C_e calculated in the second mixing calculation, and a D_m of 168.

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 Carson WRP brine waste discharge, toxic constituents, or a toxic mix of constituents, may be present in the Facility’s 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

(see Table F-2). A total of 21 chronic WET tests were conducted on the Facility's final effluent between October 2017 and March 2023. Twenty-four hour composite samples were collected in coordination with the Warren Facility to provide same-day brine and secondary effluent for the combined effluent to be tested. The combined effluent was manually composited to consist of 0.48% Carson WRP brine and 99.52% Warren Facility secondary treated effluent. This composition was based on the lowest Warren Facility monthly average effluent flow rate and the Carson WRP maximum design brine flow. Toxicity testing was conducted annually with species sensitivity testing occurring every 24 months. The combined effluent was tested at the in-waste stream concentration (IWC) of 0.5988% (i.e., 1 part combined effluent/((166 dilution factor for Outfalls 001 and 002)+1)). Each toxicity test included a dilution series consisting of the IWC, a control, and two dilution concentrations higher and lower than the IWC (i.e., 0.1497%, 0.2994%, 0.5988%, 1.198%, and 2.395%).

Tests were conducted using the Test of Significant Toxicity (TST) hypothesis testing statistical approach with results reported as "Pass" or "Fail" and a percent effect. All tests at the IWC passed the TST with most tests having a percent effect less than five percent, with two exceptions. The survival and growth endpoints in a topsmelt test conducted in August 2019 showed a percent effect of 18.2% and 14.7% at the IWC for survival and growth, respectively. During this August 2019 test, topsmelt also failed the TST for both survival and growth at the two dilution concentrations below IWC. The lab report noted that the test batch of topsmelt was abnormally sensitive to the reference toxicant (copper). Also, the September 2019 red abalone toxicity test failed the TST at two concentrations higher than the IWC. Toxicity tests conducted between October 2017 and August 2018 were subject to the effluent limitations in Order No. R4-2013-0046 and were expressed as 167 Toxicity Units Chronic (TUc). None of the seven toxicity tests conducted from October 2017 to August 2018 exceeded 167 TUc.

Since all toxicity tests passed the TST at the IWC during the previous permit cycle, WQBELs are not included in this Order. 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 between 100:1 and 350:1. 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

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR §122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The final effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, Order Number R4-2018-0090.

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 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/ implements State water quality standards for discharges from Discharge Points 001, 002, 003, and 004. This Order's requirements for the discharge point are consistent with the Ocean Plan, except for the expression of the units for chronic toxicity.

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 Carson WRP brine and Warren Facility secondary effluent from October 2017 to March 2023 all resulted in “Pass” at the IWC. Since the data collected during the previous permit cycle did not exhibit toxicity, no unreasonable degradation of ocean waters is expected to occur.

This Order 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.

4.4.3. Stringency of Requirements for Individual Pollutants

This Order 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’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’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- 10. Summary of Final Effluent Limitations for Discharge Points 001, 002, 003, and 004

| Parameter | Units | AMEL | AWEL | Instan. Min. | Instan. Max. | Annual Average | Basis | Notes |
|------------------------------|---------|------|------|--------------|--------------|----------------|----------------------|---------|
| Total Suspended Solids (TSS) | mg/L | 60 | -- | -- | -- | -- | Existing, Ocean Plan | a |
| TSS | lbs/day | 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 | 250 | 400 | -- | 750 | -- | 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 |
| DDT | g/yr | -- | -- | -- | -- | 10.1*Q | TMDL | d, e |
| PCBs Aroclors | g/yr | -- | -- | -- | -- | 0.271*Q | TMDL | d, e |

Footnotes for Table F-10:

- a. For intermittent discharges, the daily value used to calculate these average monthly values shall be considered to equal zero for days on which no discharge occurred.
- b. The mass emission rates are calculated using 1.2 MGD design flow rate, consistent with water-quality based limits in the previous permit: lbs/day = 8.34 x C_e (effluent concentration in mg/L) x Q (flow rate in MGD).
- c. The instantaneous minimum or maximum effluent limitations shall apply to grab samples.
- d. See Attachment A for definitions of terms.
- e. 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 DDTs and PCBs mass load from the Warren Facility, the Hyperion WRP, and West Basin’s Edward C. Little and Carson Regional Water

Recycling Plants shall not be more than 14,567 g/yr for DDTs and 351 g/yr for PCBs. The Discharger is deemed in compliance with these group water quality-based effluent limitations (WQBELs) for DDT and PCBs if it complies with the individual mass-based WQBELs for DDT and PCBs. The *Santa Monica Bay Total Maximum Daily Load for DDTs and PCBs* (Santa Monica Bay TMDL for DDTs and PCBs) further states that the waste load allocation and the final effluent limitation for the Carson WRP are as follows:

$$\text{Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + C_{\text{Warren Facility}} * Q_{\text{Warren Facility to Carson WRP}}$$

Where:

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

$C_{\text{Warren Facility}}$ is the concentration WLA for Warren Facility effluent

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

$Q_{\text{Warren Facility to Carson WRP}}$ is the effluent flow diverted from the Warren Facility to Carson WRP

$$\text{For DDTs: Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + 0 = 10.1 * Q_{\text{Hyperion WRP to Carson WRP}}$$

$$\text{For PCBs: Carson WRP WLA} = C_{\text{Hyperion WRP}} * Q_{\text{Hyperion WRP to Carson WRP}} + 0 = 0.271 * Q_{\text{Hyperion WRP to Carson WRP}}$$

End of footnotes for Table F-10

- a. **Temperature:** The temperature of wastes discharged shall not exceed 100°F. As discussed in section 3.3.2. of this Fact Sheet, this Order implements the Thermal Plan. The Thermal Plan states that for existing discharges into coastal waters, “Elevated temperature wastes shall comply with limitations necessary to assure protection of the beneficial uses and areas of special biological significance.” This effluent limitation has been carried over from the previous permit since there has been no indication that the temperature of the wastes discharged from the facility has impacted the beneficial uses of the receiving water or areas of special biological significance.
- 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. This effluent limitation is based on Table 4 of the Ocean Plan.
- 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. This narrative effluent limitation

is based on Table 3 of the Ocean Plan.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 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. R4-2023-0181 issued to the JOS for discharges from the Warren Facility, which discharges from the same outfalls.

Chapter 7-4 of the Basin Plan includes a WLA for bacteria indicators for the Hyperion WRP and the Warren Facility. Section 3.4.4.a of the Fact Sheet describes the rationale for including the WLA as a receiving water limitation in this Order. This is consistent with the implementation of the Ocean Plan because section III.D.1.b of the implementation provisions for bacterial characteristics in the Ocean Plan indicate that TMDLs established before February 4, 2019, to implement numeric water quality objectives for bacteria remain in effect.

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. Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR § 123.25, this Order 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 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 may reopen the Order 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 or 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 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.

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, the Order requires the Permittee to review and update, if necessary, its SCCP after each incident. The Permittee

shall ensure 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. 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. For proper and effective operation of such facilities or systems, routine maintenance and the operational testing of emergency infrastructure/equipment is necessary. Spills of concentrated waste or chemicals 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 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) – Not Applicable

6.2.6. Spill Reporting Requirements.

This Order establishes a reporting protocol for how different types of spills, overflows, or bypasses of wastes from the Carson WRP covered by this Order 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 Carson WRP

Facility. Influent monitoring in this Order follows the influent monitoring requirements in the previous Order.

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 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) 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 to 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 Carson WRP and as required in the Ocean Plan is shown in the Monitoring and Reporting Program (Attachment E). Monitoring frequencies for the constituents are 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- 11. Effluent Monitoring Frequency Comparison

| Parameter | Monitoring Frequency (Order No. R4-2018-0090) | Monitoring Frequency (Order No. R4-2024-XXXX) |
|------------------------|---|---|
| Total brine waste flow | Continuously | No change |
| Oil and grease | Monthly | No change |
| pH | Monthly | No change |

| Parameter | Monitoring Frequency (Order No. R4-2018-0090) | Monitoring Frequency (Order No. R4-2024-XXXX) |
|---|--|--|
| Temperature | Monthly | No change |
| Settleable solids | Monthly | No change |
| Suspended solids | Monthly | No change |
| Turbidity | Monthly | No change |
| Salinity | Monthly | No change |
| Total residual chlorine | Quarterly | No change |
| Ammonia | Quarterly | No change |
| Chronic Toxicity | Annually | No change |
| Arsenic | Quarterly | No change |
| Cadmium | Quarterly | No change |
| Chromium VI | Quarterly | No change |
| Copper | Quarterly | No change |
| Lead | Quarterly | No change |
| Mercury | Semiannually | No change |
| Nickel | Quarterly | No change |
| Selenium | Quarterly | No change |
| Silver | Quarterly | No change |
| Zinc | Quarterly | No change |
| Cyanide | Quarterly | No change |
| Phenolic compounds (chlorinated) | Semiannually | No change |
| Phenolic Compounds (non-chlorinated) | Semiannually | No change |
| Endosulfan | Semiannually | No change |
| Endrin | Semiannually | No change |
| Hexachlorocyclohexane (HCH) | Semiannually | No change |
| Radioactivity | Semiannually | No change |
| Acrolein | Semiannually | No change |
| Antimony | Quarterly | No change |
| Bis(2-chloroethoxy) methane | Semiannually | No change |
| Bis(2-chloroisopropyl) ether | Semiannually | No change |

| Parameter | Monitoring Frequency (Order No. R4-2018-0090) | Monitoring Frequency (Order No. R4-2024-XXXX) |
|-----------------------------|--|--|
| Chlorobenzene | Semiannually | No change |
| Chromium III | Quarterly | No change |
| di-n-butyl phthalate | Quarterly | No change |
| Dichlorobenzenes | Semiannually | No change |
| Diethyl phthalate | Semiannually | No change |
| Dimethyl phthalate | Quarterly | 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 | Quarterly | No change |
| Toluene | Quarterly | No change |
| Tributyltin | Quarterly | No change |
| 1,1,1-trichloroethane | Semiannually | No change |
| Acrylonitrile | Semiannually | No change |
| Aldrin | Semiannually | No change |
| Benzene | Semiannually | No change |
| Benzidine | Semiannually | No change |
| Beryllium | Quarterly | No change |
| Bis(2-chloroethyl) ether | Semiannually | No change |
| Bis(2-ethylhexyl) phthalate | Quarterly | No change |
| Carbon tetrachloride | Quarterly | No change |
| Chlordane | Semiannually | No change |
| Chlorodibromomethane | Quarterly | No change |
| Chloroform | Quarterly | No change |
| DDT | Semiannually/Annually | No change |
| 1,4-dichlorobenzene | Semiannually | No change |

| Parameter | Monitoring Frequency (Order No. R4-2018-0090) | Monitoring Frequency (Order No. R4-2024-XXXX) |
|--------------------------------|--|--|
| 3,3'-dichlorobenzidine | Semiannually | No change |
| 1,2-dichloroethane | Semiannually | No change |
| 1,1-dichloroethylene | Semiannually | No change |
| Dichlorobromomethane | Quarterly | No change |
| Dichloromethane | Quarterly | 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 | Quarterly | No change |
| Heptachlor | Semiannually | Quarterly |
| Heptachlor epoxide | Semiannually | No change |
| Hexachlorobenzene | Semiannually | No change |
| Hexachlorobutadiene | Semiannually | No change |
| Hexachloroethane | Semiannually | No change |
| Isophorone | Semiannually | No change |
| N-nitrosodimethylamine | Quarterly | 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 individual congeners) | Annually | No change |
| TCDD Equivalentents | Semiannually | No change |
| 1,1,2,2-tetrachloroethane | Semiannually | No change |
| Tetrachloroethylene | Quarterly | No change |
| Toxaphene | Semiannually | No change |
| Trichloroethylene | Semiannually | No change |
| 1,1,2-trichloroethane | Semiannually | No change |
| 2,4,6-trichlorophenol | Quarterly | No change |
| Vinyl chloride | Semiannually | No change |
| Total chromium | --- | Quarterly |

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 does not include receiving water monitoring requirements for the Permittee. The surface receiving water monitoring relevant to the discharge is instead conducted by the JOS under the Warren Facility NPDES Permit to ensure the combined Warren Facility (CI-1758) effluent and Carson WRP brine discharge complies with receiving water limitations in this Order and in the Warren Facility NPDES Permit, and to characterize the water quality of the receiving water. Receiving water monitoring requirements are based on the Ocean Plan and the Basin Plan. Ocean-specific Regional Monitoring requirements may be required if determined to be needed by the Executive Officer.

7.4.2. Groundwater (Not Applicable)

7.5. Other Monitoring Requirements

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

8.1. Notification of Interested Parties

The Los Angeles Water Board 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 October 12, 2023 requesting a Native American Contacts list and received the list on December 1, 2023. Further communications were sent to local communities and tribal communities on December 18, 2023. The public notice and tentative WDRs and NPDES permit were posted on the Los Angeles Water Board's [website](#) at https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/index.html under the "Tentative Orders/Permits" heading. Permittee notification was provided by publishing a copy of the notice in the local newspaper, The Daily Breeze, and posting a copy on the Discharger's website <https://westbasin.org> under "News" under "Public Notifications". 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](#) 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 at the address on the cover page of this Order, or by email submitted to Danielle.Robinson@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, the written comments were due by 5:00 p.m. on January 17, 2024.

8.3. Public Hearing

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

Date: February 22, 2024
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 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 this Order 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 at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or State Holiday, the petition must be 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](#) 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.

8.5. 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.

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

8.6. Register of Interested Persons

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

8.7. Additional Information

Requests for additional information or questions regarding this Order should be directed to [Danielle Robinson](#) at (213) 576-6696 or at Danielle.Robinson@waterboards.ca.gov.

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