



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

March 8, 2017

Mr. Enrique Zaldivar, Director
Department of Public Works, Bureau of Sanitation
City of Los Angeles
1149 South Broadway Street, 9th Floor
Los Angeles, CA 90015-2213

Dear Mr. Zaldivar:

ADOPTED WASTE DISCHARGE REQUIREMENTS (WDRs) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITS:

DONALD C. TILLMAN WATER RECLAMATION PLANT, NPDES PERMIT NO CA0056227, CI-5695

LOS ANGELES-GLENDALE WATER RECLAMATION PLANT, NPDES PERMIT NO CA0053953, CI-5675

Our letter dated February 17, 2017, transmitted the revised tentative Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) Permits for the above-mentioned facilities.

In accordance with administrative procedures, this Regional Water Board at a public hearing held on March 2, 2017, reviewed the revised tentative requirements, considered all the factors in the case, and adopted WDRs and NPDES Order Nos. **R4-2017-0062 and R4-2017-0063** for the Donald C. Tillman Water Reclamation Plan and the Los Angeles-Glendale Water Reclamation Plant, respectively.

The complete adopted Orders will be sent only to the Discharger. However, these documents are available on the Regional Water Board's website for your review. The Regional Water Board's web address is www.waterboards.ca.gov/losangeles/.

If you have any questions, please contact Raul Medina at (213) 620-2160 or via email at raul.medina@waterboards.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "David Hung".

David Hung, P.E., Chief
Watershed Regulatory Section

IRMA MUÑOZ, CHAIR | SAMUEL UNGER, EXECUTIVE OFFICER

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♻️ RECYCLED PAPER

Enclosures

cc:

United States Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
NOAA, National Marine Fisheries Service
U.S. Army Corps of Engineers
Department of Interior, U.S. Fish and Wildlife Service
Frances McChesney, State Water Resources Control Board, Office of Chief Counsel
Department of Fish and Wildlife, Region 5
California State Parks and Recreation
State Coastal Conservancy
Los Angeles County, Department of Public Works
Los Angeles County, Bureau of Sanitation
Water Replenishment District of Southern California
Heal the Bay
Environment Now
Los Angeles Waterkeeper
Natural Resources Defense Council
Friends of the Los Angeles River
NRDC
Council for Watershed Health
SCAP
BACWA
CASA

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

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**ORDER R4-2017-0063
NPDES NO. CA0053953**

**WASTE DISCHARGE REQUIREMENTS
FOR THE CITY OF LOS ANGELES
LOS ANGELES-GLENDALE WATER RECLAMATION PLANT**

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

Table 1. Discharger Information

| | |
|----------------------|--|
| Discharger/Permittee | City of Los Angeles |
| Name of Facility | Los Angeles-Glendale Water Reclamation Plant and its associated wastewater collection system and outfall |
| Facility Address | 4600 Colorado Boulevard |
| | Los Angeles, CA 90039 |
| | Los Angeles County |

Table 2. Discharge Location

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|-----------------|---------------------------|----------------------------------|----------------------------------|-------------------|
| 001 | Tertiary treated effluent | 34.13707° | -118.27524° | Los Angeles River |

Table 3. Administrative Information

| | |
|--|---|
| This Order was adopted on: | March 2, 2017 |
| This Order shall become effective on: | May 1, 2017 |
| This Order shall expire on: | April 30, 2022 |
| 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 United States Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows: | Major |

I, Samuel Unger, 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.


 Samuel Unger, P.E., Executive Officer

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I. FACILITY INFORMATION

Information describing the Los Angeles-Glendale Water Reclamation Plant (Los Angeles-Glendale WRP or Facility) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

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

- A. Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.
- B. Background and Rationale for Requirements.** The Regional 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 and H are also incorporated into this Order.
- C. Provisions and Requirements Implementing State Law.** Some of the provisions/requirements in this Order and the MRP are included to implement state law only. These provisions/requirements are not mandated or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies available for NPDES violations.
- D. Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- E. Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes Order No. R4-2011-0197 as amended by Order No. R4-2011-0197-A01, except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the California Water Code (CWC) (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous Order.

III. DISCHARGE PROHIBITIONS

- A.** Discharge of treated wastewater at a location different from that described in this Order is prohibited.

- B. 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 I.G. of Attachment D, Standard Provisions.
- C. The monthly average effluent dry weather discharge flow rate from the facility shall not exceed the 20 million gallons per day (mgd) design capacity.
- D. The Permittee shall not cause degradation of any water supply, except as consistent with State Water Board Resolution No. 68-16.
- E. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the California Water Code.
- F. The discharge of any substances in concentrations toxic to animals or plants is prohibited.
- G. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

- a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001 into the Los Angeles River, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 4. Effluent Limitations

| Parameter | Units | Effluent Limitations | | | | |
|--|----------------------|----------------------|----------------|----------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Biochemical Oxygen Demand (BOD 5-day @ 20°C) | mg/L | 20 | 30 | 45 | | |
| | lbs/day ¹ | 3,340 | 5,000 | 7,510 | | |
| Total Suspended Solids (TSS) | mg/L | 15 | 40 | 45 | | |
| | lbs/day ¹ | 2,500 | 6,680 | 7,500 | | |
| Turbidity ² | NTU | 2 ² | -- | 5 ² | -- | 10 ² |
| pH | standard units | -- | -- | -- | 6.5 | 8.5 |

¹ The mass emission rates are based on the plant design flow rate of 20 mgd, and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day, or Flow (mgd) x Concentration (µg/L) x 0.00834 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

² For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the treated wastewater does not exceed any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time.

| Parameter | Units | Effluent Limitations | | | | |
|---|----------------------|----------------------|------------------|------------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Temperature | °F | -- | -- | 86 ³ | | |
| Radioactivity ⁴ | | | | | | |
| Combined Radium-226 and Radium 228 | pCi/L | 5 ⁴ | -- | -- | | |
| Gross Alpha particle activity (excluding radon and uranium) | pCi/L | 15 ⁴ | -- | -- | | |
| Uranium | pCi/L | 20 ⁴ | -- | -- | | |
| Gross Beta/photon emitters | millirem/year | 4 ⁴ | -- | -- | | |
| Strontium-90 | pCi/L | 8 ⁴ | -- | -- | | |
| Tritium | pCi/L | 20,000 ⁴ | -- | -- | | |
| Total coliform ⁵ | MPN or CFU/100 mL | 23 ⁵ | 2.2 ⁵ | 240 ⁵ | | |
| E.coli ⁶ | MPN or CFU/100 mL | 126 ⁶ | 2.2 ⁶ | 235 ⁶ | | |
| Removal Efficiency for BOD and TSS | % | 85 | -- | -- | | |
| Oil and Grease | mg/L | 10 | -- | 15 | | |
| | lbs/day ¹ | 1,670 | -- | 2,500 | | |
| Settleable Solids | ml/L | 0.1 | -- | 0.3 | | |

³ The temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature.

⁴ The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions.

⁵ The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if: (1) the median number of total coliform bacteria in the disinfected effluent does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Unit (CFU) per 100 milliliters utilizing the bacteriological results of the last seven (7) days for which an analysis has been completed, (2) the number of total coliform bacteria does not exceed 23 MPN or CFU per 100 milliliters in more than one sample within any 30-day period, and (3) no sample shall exceed 240 MPN or CFU of total coliform bacteria per 100 milliliters. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.

⁶ The *LA River Bacteria TMDL* contains Waste Load Allocations (WLAs) for DC Tillman, Los Angeles-Glendale, and Burbank WRPs. WLAs are expressed as allowable exceedance days. The WLAs for LAGWRP is set equal to a 7-day median of 2.2 MPN/100 mL of E. coli or a daily max of 235 MPN/100mL to ensure zero (0) days of allowable exceedances. No exceedances of the geometric mean TMDL numeric target of 126/100 mL E.coli are permitted within the month.

| Parameter | Units | Effluent Limitations | | | | |
|--|----------------------|----------------------|----------------|-------------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Total Residual Chlorine | mg/L | -- | -- | 0.1 | | |
| | lbs/day ¹ | -- | -- | 17 | | |
| Total Dissolved Solids | mg/L | 950 | -- | -- | | |
| | lbs/day ¹ | 158,600 | -- | -- | | |
| Sulfate | mg/L | 300 | -- | -- | | |
| | lbs/day ¹ | 50,080 | -- | -- | | |
| Chloride | mg/L | 190 ⁷ | -- | -- | | |
| | lbs/day ¹ | 31,710 | -- | -- | | |
| Methylene Blue Activated Substances (MBAS) | mg/L | 0.5 ⁸ | -- | -- | | |
| | lbs/day ¹ | 83 | -- | -- | | |
| Ammonia Nitrogen (as N) (ELS Present, April 1 – September 30) | mg/L | 3.7 ⁹ | -- | 5.7 | | |
| | lbs/day ¹ | 617 | -- | 951 | | |
| Ammonia Nitrogen (as N) (ELS Absent, October 1 – March 31) | mg/L | 3.7 ⁹ | -- | 7.4 | | |
| | lbs/day ¹ | 617 | -- | 1,234 | | |
| Nitrate + Nitrite (as N) | mg/L | 7.2 ¹⁰ | -- | -- | | |
| | lbs/day | -- | -- | -- | | |
| Nitrate (as N) | mg/L | 7.2 ¹⁰ | -- | -- | | |
| | lbs/day | -- | -- | -- | | |
| Nitrite (as N) | mg/L | 0.9 ¹⁰ | -- | -- | | |
| | lbs/day | -- | -- | -- | | |
| Cadmium (Wet-weather) ¹¹ | µg/L | 2.8 | -- | 8.9 | | |
| | lbs/day ¹ | 0.47 ¹² | -- | 1.5 ¹² | | |
| Copper (All-year round) | µg/L | 24 | -- | 34 | | |
| | lbs/day ¹ | 4.0 ¹² | -- | 5.7 ¹² | | |
| Lead (All-year round) | µg/L | 10 | -- | 18 | | |
| | lbs/day ¹ | 1.7 ¹² | -- | 3.0 ¹² | | |

⁷ In accordance with the Resolution 97-02, adopted by the Regional Water Board on January 27, 1997, the chloride limitation has been increased from 150 to 190 mg/L.

⁸ Based on the secondary drinking water standard (CDPH 1992).

⁹ This water quality based effluent limitation incorporates a margin of safety reflective of plant performance in accordance with the *Los Angeles River Nitrogen and Related Effects TMDL*, Resolution No. R12-010 that became effective on August 7, 2014.

¹⁰ This is a final effluent limitation consistent with the waste load allocation (WLA) set forth in the *Los Angeles River Nitrogen and Related Effects TMDL*, Resolution No. R12-010 that became effective on August 7, 2014.

¹¹ Wet-weather effluent limitations apply when the maximum daily flow measured at the Los Angeles River Wardlow station is equal to or greater than 500 cubic feet per second.

¹² According to *LA River Metals TMDL*, Resolution No. R15-004, the mass-based effluent limitations for cadmium, copper, lead, and zinc do not apply during wet weather when the influent exceeds the plant design flow rate of 20 mgd.

| Parameter | Units | Effluent Limitations | | | | |
|-----------------------------------|--|----------------------|----------------|----------------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Zinc (Wet-weather) ¹¹ | µg/L | 241 | -- | 295 | | |
| | lbs/day ¹ | 40 ¹² | -- | 49 ¹² | | |
| Cyanide | µg/L | 4.3 | -- | 8.5 | | |
| | lbs/day ¹ | 0.72 | -- | 1.4 | | |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 4.0 | -- | -- | | |
| | lbs/day ¹ | 0.67 | -- | -- | | |
| Diazinon | µg/L | 0.04 | -- | 0.08 | | |
| | lbs/day ¹ | 0.0067 | -- | 0.013 | | |
| Dibenzo(a,h)Anthracene | µg/L | 0.049 | -- | 0.098 | | |
| | lbs/day ¹ | 0.0082 | -- | 0.016 | | |
| Dieldrin | µg/L | 0.00014 | -- | 0.00028 | | |
| | lbs/day ¹ | 0.000023 | -- | 0.000047 | | |
| Chronic Toxicity ^{13,14} | Pass or Fail, % Effect (Test of Significant Toxicity, (TST)) | Pass ¹⁵ | | Pass or % Effect <50 | | |

b. To protect the underlying ground water basins, pollutants shall not be present in the wastes discharged at concentrations that pose a threat to ground water quality.

2. Interim Effluent Limitations – Not Applicable

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

¹³ The median monthly effluent limitation (MMEL) shall be reported as “Pass” or “Fail.” The maximum daily effluent limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect.” The MMEL for chronic toxicity shall only apply when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

¹⁴ A numeric WQBEL is established because effluent data showed that there is reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations will be implemented using the *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013), current USEPA guidance in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June /2010) and *EPA Regions 8, 9, and 10 Toxicity Training Tool* (January 2010), <http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tool-january-2010>.

¹⁵ This is a Median Monthly Effluent Limitation.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives (WQOs) contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Los Angeles River:

1. For waters designated with a warm freshwater habitat (WARM) beneficial use, the temperature of the receiving water at any time or place and within any given 24-hour period shall not be altered by more than 5°F above the natural temperature and shall not be raised above 86°F due to the discharge of effluent at the receiving water station located downstream of the discharge. Natural conditions shall be determined on a case-by-case basis.

If the receiving water temperature, downstream of the discharge, exceeds 86°F as a result of the following:

- a. High temperature in the ambient air; or,
 - b. High temperature in the receiving water upstream of the discharge,
- then the exceedance shall not be considered a violation.
2. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.
 3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.
 4. The total residual chlorine shall not exceed 0.1 mg/L in the receiving waters and shall not persist in the receiving water at any concentration that causes impairment of beneficial uses as a result of the wastes discharged.
 5. The Escherichia coli (E. coli) concentration in the receiving water shall not exceed the following, as a result of wastes discharged:
 - a. Geometric Mean Limits
E. coli density shall not exceed 126/100 mL.
 - b. Single Sample Limits
E. coli density shall not exceed 235/100 mL.
 6. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:
 - a. Where natural turbidity is between 0 and 50 NTU, increases shall not exceed 20%.
 - b. Where natural turbidity is greater than 50 NTU, increases shall not exceed 10%.
 7. The wastes discharged shall not produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.
 8. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

9. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.
10. The wastes discharged shall not contain substances that result in increases in BOD, which adversely affect the beneficial uses of the receiving waters.
11. Waters discharged shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
12. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions as a result of waters discharged.
13. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
14. The wastes discharged shall not alter the natural taste, odor, or color of fish, shellfish, or other surface water resources used for human consumption.
15. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.
16. The wastes discharged shall not result in visible floating particulates, foams, or oil and grease in the receiving waters.
17. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; or cause aesthetically undesirable discoloration of the receiving waters.
18. The wastes discharged shall not contain any individual pesticide or combination of pesticides in concentrations that adversely affect beneficial uses of the receiving waters. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life as a result of the wastes discharged.
19. Chronic Toxicity Narrative Receiving Water Quality Objective
 - a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.
 - b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.
 - c. If the chronic toxicity median monthly threshold at the immediate downstream receiving water location is not met and the toxicity cannot be attributed to upstream toxicity, as assessed by the Permittee, then the Permittee shall initiate accelerated monitoring according to Attachment E – MRP section V.A.7.
 - d. If the chronic toxicity median monthly threshold of the receiving water at both upstream and downstream stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented.

B. Groundwater Limitations

1. The discharge shall not cause the underlying groundwater to be degraded except as consistent with State Board Resolution No. 68-16, exceed WQOs, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Permittee shall comply with all Standard Provisions included in Attachment D.
2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
 - a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.
 - b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.
 - c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.
 - d. Collection, treatment, and disposal systems shall be operated in a manner that precludes or impedes public contact with wastewater.
 - e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board.
 - f. The provisions of this order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
 - g. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the 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, related to oil and hazardous substances liability.
 - h. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities or penalties to which the Permittee is or may be subject to under section 311 of the CWA, related to oil and hazardous substances liability.
 - i. Discharge of wastes to any point other than specifically described in this Order 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. A copy of these waste discharge specifications shall be maintained at the discharge Facility so as to be available at all times to operating personnel.

- m. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- n. The Permittee shall file with the Regional 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.
- o. In the event of any change in name, ownership, or control of these waste disposal facilities, the Permittee shall notify the Regional 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 Regional Water Board, 30 days prior to taking effect.
- p. 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.
- q. The Permittee shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
 - i. Name and general composition of the chemical,
 - ii. Frequency of use,
 - iii. Quantities to be used,
 - iv. Proposed discharge concentrations, and
 - v. USEPA registration number, if applicable.
- r. Violation of any of the provisions of this Order may subject the Permittee to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- s. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- t. 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.
- u. CWC section 13385(h)(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR part 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.”

- v. CWC section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.
- w. 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.
- x. CWC section 13387(e) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this order shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000), imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for 16, 20, or 24 months, or by both that fine and imprisonment. For a subsequent conviction, such a person shall be punished by a fine of not more than twenty-five thousand dollars (\$25,000) per day of violation, by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for two, three, or four years, or by both that fine and imprisonment.
- y. 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 Chief of the Watershed Regulatory Section at the Regional 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 Regional Water Board within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-5675 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.
- z. State Water Board Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Revised January 22, 2013, effective April 25, 2013.), directs the Regional Water Board to encourage recycling. Consistent with the Policy, the Permittee shall submit a feasibility report evaluating the feasibility of

additional recycling efforts to reduce the amount of treated effluent discharged as authorized in this Order and a recycled water progress report describing any updates to the development of increased recycled water production and/or distribution. These reports shall be included in the annual report submittal, as described in the Monitoring and Reporting Program (MRP).

B. Monitoring and Reporting Program (MRP) Requirements

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

C. Special Provisions

1. Reopener Provisions

- a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:
 - i. Violation of any term or condition contained in this Order;
 - ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

The filing of a request by the Permittee for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

- b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity testing, monitoring of internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.
- c. This Order may be modified, in accordance with the provisions set forth in title 40 of the Code of Federal Regulations (40 CFR) parts 122 and 124 to include requirements for the implementation of a watershed protection management approach.
- d. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order have or will have a reasonable potential to cause, or contribute to adverse impacts on water quality or beneficial uses of the receiving waters.
- e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Permittee for an Order modification, revocation and issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- f. This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 to 124, to include new minimum levels (MLs).

- g. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Orders to conform to the toxic effluent standard or prohibition.
 - h. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.
 - i. This Order may be reopened and modified, to add or revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, or the adoption/revision of any of the Los Angeles River Watershed TMDLs.
 - j. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.
 - k. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to be consistent with any Toxicity Plan that is subsequently adopted by the State Water Board promptly after USEPA approval of such Plan.
 - l. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, a new state-wide plan, new laws, or new regulations.
 - m. Upon the request of the Permittee, the Regional Water Board will review future studies conducted by the Permittee to evaluate the appropriateness of utilizing dilution credits and/or attenuation factors if they are demonstrated to be appropriate and protective of the GWR beneficial use, on a pollutant-by-pollutant basis. Following this evaluation, this Order may be reopened to modify final effluent limitations, if at the conclusion of necessary studies conducted by the Permittee, the Regional Water Board determines that dilution credits, attenuation factors, or metal translators are warranted.
 - n. This NPDES permit may be reopened for modification to recalculate the final water quality based effluent limitations (WQBELs) for Ammonia as Nitrogen and/or Copper, to incorporate a revised margin of safety factor (MOSF) reflective of plant performance consistent with and up to the maximum limits allowed by the applicable TMDLs and SSOs, if the discharger provides new information to the Regional Water Board showing the flow conditions or other extenuating circumstances cause a significant change in the water reclamation plant's treatment performance, and if anti-backsliding and antidegradation requirements are met.
- 2. Special Studies, Technical Reports and Additional Monitoring Requirements**
- a. **Toxicity Reduction Requirements**
The Permittee shall prepare and submit a copy of the Permittee's initial investigation Toxicity Reduction Evaluation (TRE) workplan in accordance with Monitoring and Reporting Program section V.A.6.
 - b. **Ammonia Receiving Water Confirmatory Monitoring**
The *Los Angeles River Nitrogen Compounds and Related Effects TMDL*, Resolution No. R12-010 requires the Permittee to evaluate the effects of the ammonia site specific objective (SSO) in the receiving water. The Permittee shall submit a

workplan addressing the effects of ammonia SSO in the receiving water, specifying the particular test method that would be used, and shall submit the workplan no later than 90 days after the effective date of this Order for approval by the Executive Officer. The workplan shall include the following requirements per Resolution No. R12-010.

- i. The Permittee must conduct confirmatory receiving water monitoring to verify that water quality conditions are similar to those of the 2003 ammonia water effects ratio (WER) study period. Confirmatory monitoring will include concurrent chemistry and toxicity receiving water monitoring. The confirmatory toxicity monitoring will be supplemental to three species toxicity testing required in the NPDES permits and must utilize *Hyallela azteca* as the test organism. Temperature, pH, and ammonia receiving water data will be collected at the time and location of collection of the toxicity samples.
- ii. Monitoring of chemistry and toxicity testing should include a minimum of three sample events per year for three years. Monitoring sites should be representative of those investigated in the Los Angeles River during the SSO study, as well as one location in the reach immediately downstream of where the SSO is applied. Two of the three sample events should be conducted during dry weather. Following the first three-year monitoring cycle, if there is no increase in toxicity attributable to ammonia, monitoring may be reduced to once per year at each site, as appropriate. The number and type of events during the year should be as described above.
- iii. Chemistry monitoring to include all nitrogen species, including total ammonia, pH, hardness, temperature, sodium, potassium, calcium, BOD, sulfate, total dissolved solids, and chloride.
- iv. If confirmatory monitoring indicates toxicity due to ammonia or a change in the waterbody that could impact the calculation or application of the SSOs, including either its chemical characteristics or the aquatic species present, including early life stages of fish, the POTW shall develop and submit a plan for reevaluating the SSOs to the Executive Officer.
- v. In the event that ammonia concentrations are consistently at levels below effluent limitations that would be set without use of the SSO, monitoring to confirm the SSOs is not necessary. The ammonia WLA of 2.2 mg/L for Los Angeles-Glendale WRP, as stated in Resolution No. 2003-009, will be used as the base effluent limitation.

c. Treatment Plant Capacity

The Permittee shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity of waste treatment and/or disposal facilities. The Permittee's senior administrative officer shall sign a letter, which transmits that report and certifies that the Permittee's policy-making body is adequately informed of the report's contents. The report shall include the following:

- i. The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
- ii. The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and,

- iii. A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable to those facilities which have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such a report shall be filed within 90 days of the issuance of this Order.

3. Best Management Practices and Pollution Prevention

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

Within 90 days of the effective date of this Order, the Permittee is required to submit a SCCP, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Permittee's collection system or treatment facilities that reach water bodies, including dry channels and beach sands. At a minimum, the plan shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Permittee shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. 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 MRP section X.B.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Permittee shall develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the 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; 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 Regional 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 Regional 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.
- v. An annual status report that shall be sent to the Regional Water Board including:
 - (a) All PMP monitoring results for the previous year.
 - (b) A list of potential sources of the reportable pollutant(s).
 - (c) A summary of all actions undertaken pursuant to the control strategy.
 - (d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

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

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

a. Sludge Disposal Requirements (Not Applicable)

All sludge generated at the wastewater treatment plant is returned back to the sewer for transport and processing at the Hyperion Treatment Plant.

b. Pretreatment Requirements

- i. The Permittee has developed and implemented an approved Pretreatment Program that was submitted to the Regional Water Board. This Order requires implementation of the approved Pretreatment Program. Any violation of the Pretreatment Program will be considered a violation of this Order.
- ii. The City has an industrial wastewater Pretreatment Program which was approved by the USEPA and the Regional Water Board in accordance with 40 CFR part 403, General Pretreatment Regulation. The Pretreatment Program regulates industries to protect the City's wastewater collection and treatment system, to ensure effluent water quality and the quality of biosolids, and to protect health and safety of the treatment plant workers.
- iii. In 2015, there are 13 CIU permittees, 5 SIU permittees, and 1,045 other industrial users in the City of Los Angeles' Pretreatment Program.
- iv. Any change to the program shall be reported to the Regional Water Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR part 403.18.
- v. Applications for renewal or modification of this Order must contain information about industrial discharges to the POTW pursuant to 40 CFR part 122.21(j)(6). Pursuant to 40 CFR part 122.42(b) and provision VII.A of Attachment D, Standard Provisions, of this Order, the Permittee shall provide adequate notice of any new introduction of pollutants or substantial change in the volume or character of pollutants from industrial discharges which were not included in the permit application. Pursuant to 40 CFR part 122.44(j)(1), the Permittee shall annually identify and report, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR part 403.
- vi. The Permittee shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order and shall submit a written technical report as required under section B.1 of Attachment H. The Los Angeles-Glendale WRP is part of the Hyperion Treatment Plant (HTP) service area, consisting of the HTP and its collection system and three upstream water reclamation plants: the Donald C. Tillman WRP, Burbank WRP, and the Los Angeles-Glendale WRP. In the reevaluation of the local limits, the Permittee shall consider the effluent limitations contained in this Order, the contributions from the upstream WRPs in the HTP, and other relevant factors due to the interconnection of the City's WRPs within the HTP. The Permittee shall submit to the Regional Water Board revised local limits, as necessary, for Regional Water Board approval based on the schedule specified in the NPDES Permit issued to the HTP. In addition, the Permittee shall consider collection system overflow protection from such constituents as oil and grease, etc.
- vii. The Permittee shall comply with requirements contained in Attachment H – Pretreatment Reporting Requirements.

c. Collection System Requirements

- i. Collection System. The Discharger is subject to the requirements of, and must comply with, State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for

Sanitary Sewer Systems as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

6. Spill Reporting Requirements

a. Initial Notification

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

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

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

- (a) The location, date, and time of the release.
- (b) The water body that received or will receive the discharge.
- (c) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification.
- (d) If ongoing, the estimated flow rate of the release at the time of the notification.
- (e) The name, organization, phone number and email address of the reporting representative.

b. Monitoring

For spills, overflows and bypasses reported under section VI.C.6.a, the Permittee shall monitor as required below:

- i. To define the geographical extent of the spill's impact, the Permittee shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). For spills that reach surface freshwaters, the Permittee shall monitor for E.coli density. For spills that reach marine water, the Permittee shall monitor for total coliform, fecal coliform and enterococcus density. The Permittee also shall analyze the samples for relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). This monitoring shall be done on a daily basis from the time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

c. Reporting

The initial notification required under section VI.C.6.a shall be followed by:

- i. As soon as possible, but not later than twenty-four hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Permittee shall submit a statement to the Regional Water Board by email at augustine.anijelo@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:
 - (a) Agency, NPDES No., Order No., and MRP CI No., if applicable.
 - (b) The location, date, and time of the discharge.
 - (c) The water body that received the discharge.
 - (d) A description of the level of treatment of the sewage or other waste discharged.
 - (e) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water.
 - (f) The OES control number and the date and time that notification of the incident was provided to OES.
 - (g) The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).
- ii. A written preliminary report five working days after disclosure of the incident is required. Submission to the Regional Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Permittee shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted

pursuant to a statewide General WDRs for Wastewater Collection System Agencies (SSO WDR), may be submitted to the Regional Water Board to satisfy this requirement.) The written report shall document the information required in paragraph d below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

- iii. The Permittee shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Permittee's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. **Records**

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

- i. The date and time of each spill, overflow, or bypass.
- ii. The location of each spill, overflow, or bypass.
- iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section VI.C.6.b.
- iv. The cause of each spill, overflow, or bypass.
- v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances.
- vi. Any mitigation measures implemented.
- vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences.
- viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSO WDR.

e. **Activities Coordination**

Although not required by this Order, Regional Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program, (ii) a MS4 NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSO WDR.

f. Consistency with SSO WDRs

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

The requirements contained in this Order in sections VI.C.3.b (SCCP Plan section), VI.C.4 (Construction, Operation and Maintenance Specifications section), and VI.C.6 (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

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

A. General

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

B. 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:

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

C. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection B 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 non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee may be considered out of compliance for that calendar month. 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 taken, no compliance determination can be made for that calendar month with respect to the AMEL.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the 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.

D. 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 non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Permittee will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week with respect to the AWEL.

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

E. Maximum Daily Effluent Limitation (MDEL)

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 day for that parameter. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

F. 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 taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. 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 taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. 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 taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Permittee will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median effluent limitation.

I. Median Monthly Effluent Limitation (MMEL)

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

J. Chronic Toxicity

The discharge is subject to determination of "Pass" or "Fail" and "Percent Effect" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean

discharge 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.

The Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail" and the "Percent Effect" is ≥ 0.50 .

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

The chronic toxicity MDEL and MMEL are set at the IWC for the discharge (100% effluent) and expressed in units of the TST statistical approach ("Pass" or "Fail", "Percent Effect"). All NPDES effluent compliance monitoring for the chronic toxicity MDEL and MMEL shall be reported using only the 100% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using a multi-concentration test design when required by *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013). The Regional Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at IV.C.5). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observable Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Regional Water Board (40 CFR section 122.41(h)). The Regional Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Permittee, the USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

K. Percent Removal

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day

average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

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

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

L. 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.

M. 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 B “Multiple Sample Data Reduction” above) in the monitoring sample is greater than the effluent limitation and greater than or equal to the RL.

N. 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., PCB’s) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

O. Compliance with 2,3,7,8-TCDD Equivalents

TCDD equivalents shall be calculated using the following formula, where the Minimum Levels (MLs), and toxicity equivalency factors (TEFs) are as provided in the table below. The Permittee shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Permittee shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

$$\text{Dioxin Concentration} = \sum_1^{17} (TEQi) = \sum_1^{17} (Ci)(TEFi)$$

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 | 1.0 |
| 1,2,3,4,7,8-HexaCDD | 50 | 0.1 |
| 1,2,3,6,7,8-HexaCDD | 50 | 0.1 |
| 1,2,3,7,8,9-HexaCDD | 50 | 0.1 |

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

P. Mass Emission Rate

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

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

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

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

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

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

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

Q. Bacterial Standards and Analysis

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

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

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

The geometric mean values should be calculated based on a statistically sufficient number of samples and should not be less than 5 samples equally spaced over a 30-day period.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.
3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR part 136, or improved methods have been determined by the Executive Officer and/or USEPA.
4. Detection methods used for enterococcus shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

R. Single Operational Upset (SOU)

A 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:

1. A 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.
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 V.E.2(b) of Attachment D – Standard Provisions.
3. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).
4. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Permittees to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with CWC section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)

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

$$\text{Arithmetic mean} = \mu = \Sigma x / n \quad \text{where: } \Sigma x \text{ is the sum of the measured ambient water concentrations, and } n \text{ is the number of samples.}$$

Average Monthly Effluent Limitation (AMEL)

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

Average Weekly Effluent Limitation (AWEL)

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

Bioaccumulative

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

Biosolids

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

Carcinogenic

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

Coefficient of Variation (CV)

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

Daily Discharge

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

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

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

Detected, but Not Quantified (DNQ)

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

Dilution Credit

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

Effluent Concentration Allowance (ECA)

ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays

Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration

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

Estuaries

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

Inland Surface Waters

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

Instantaneous Maximum Effluent Limitation

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

Instantaneous Minimum Effluent Limitation

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

Maximum Daily Effluent Limitation (MDEL)

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

Median

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

Method Detection Limit (MDL)

MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)

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

Mixing Zone

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

Not Detected (ND)

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

Persistent Pollutants

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

Pollutant Minimization Program (PMP)

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

Pollution Prevention

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to,

input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or Regional Water Board Name.

Reporting Level (RL)

The RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board Name either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water

Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Name Basin Plan.

Standard Deviation (σ)

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

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

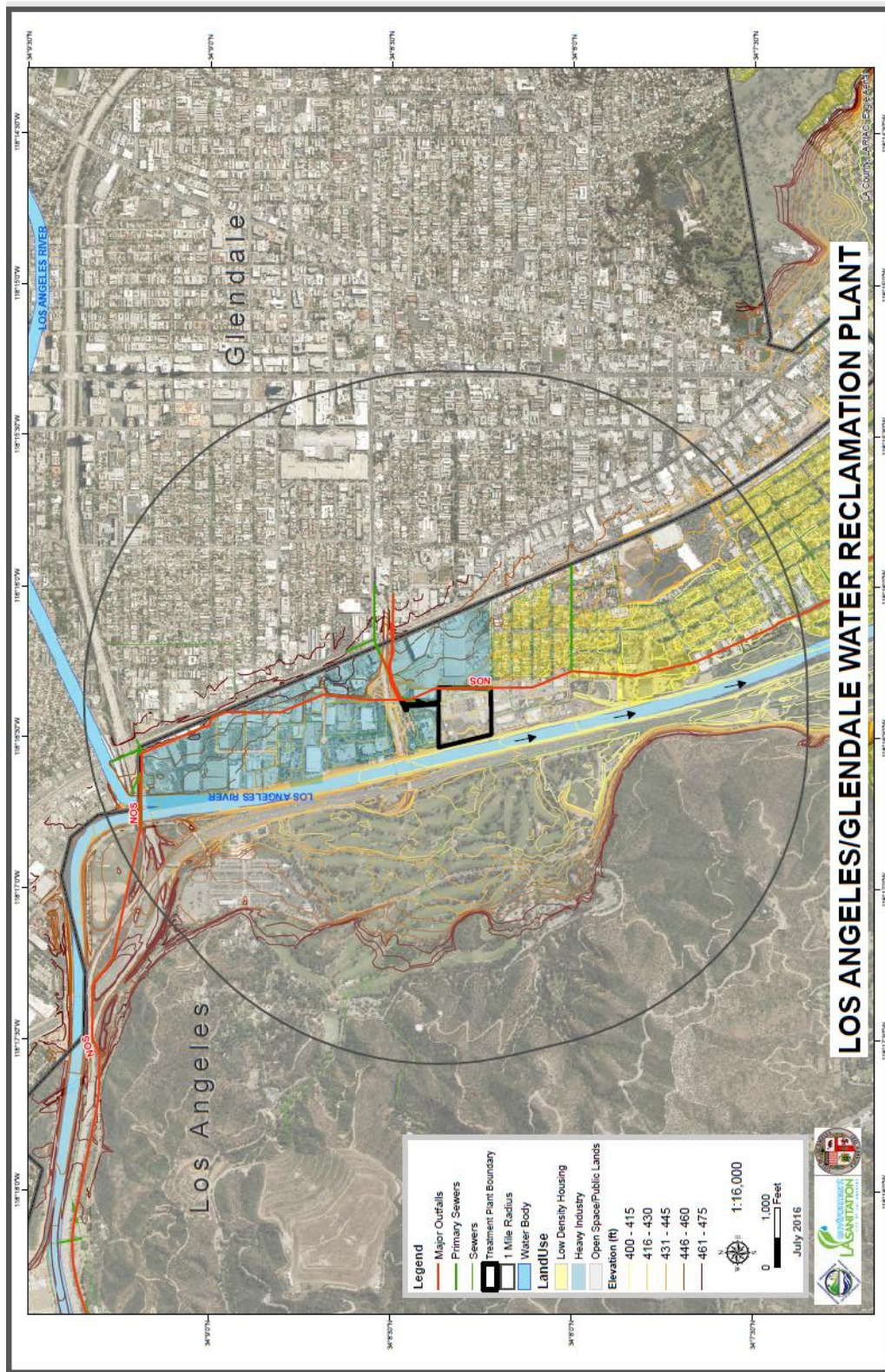
μ is the arithmetic mean of the observed values; and

n is the number of samples.

Toxicity Reduction Evaluation (TRE)

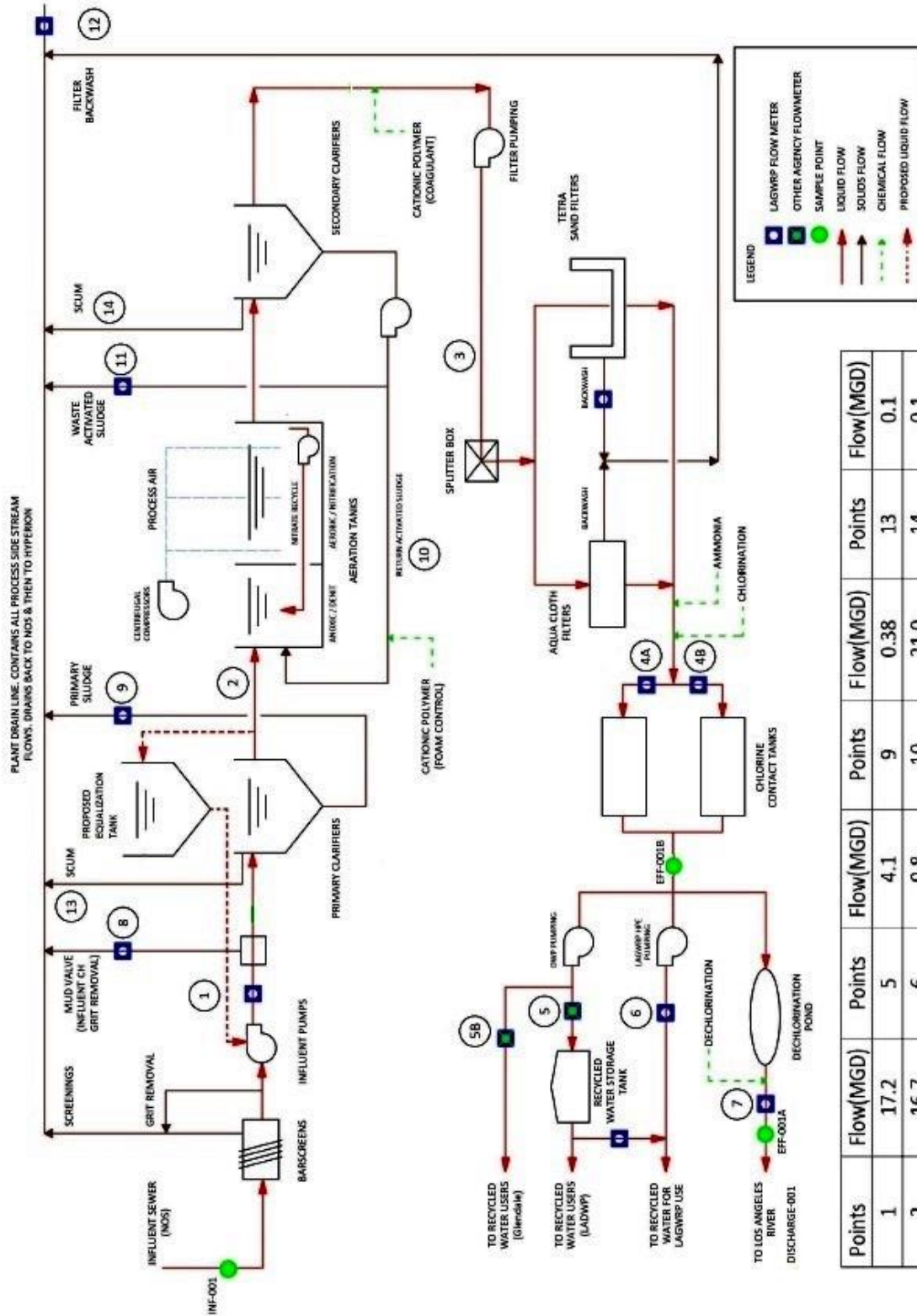
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection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

ATTACHMENT B – MAP OF LOS ANGELES-GLENDALE WRP



ATTACHMENT C – LOS ANGELES-GLENDALE WRP FLOW SCHEMATIC

Los Angeles - Glendale Water Reclamation Plant



| Points | Flow(MGD) | Points | Flow(MGD) | Points | Flow(MGD) | Points | Flow(MGD) |
|--------|-----------|--------|-----------|--------|-----------|--------|-----------|
| 1 | 17.2 | 5 | 4.1 | 9 | 0.38 | 13 | 0.1 |
| 2 | 16.7 | 6 | 0.8 | 10 | 21.0 | 14 | 0.1 |
| 3 | 15.0 | 7 | 9.8 | 11 | 0.55 | | |
| 4 | 14.5 | 8 | 0.08 | 12 | 0.6 | | |

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

B. 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).)

C. 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).)

D. Property Rights

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

E. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 CFR § 122.41(i); Wat. Code, §§ 13267, 13383):

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)(4)(B)(i); 40 CFR § 122.41(i)(1); Wat. Code, §§ 13267, 13383);
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)(4)(B)(ii); 40 CFR § 122.41(i)(2); Wat. Code, §§ 13267, 13383);
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)(4)(B)(ii); 40 CFR § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 CFR § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

F. Bypass

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).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.F.3, I.F.4, and I.F.5 below. (40 CFR § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and
 - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.F.5 below. (40 CFR § 122.41(m)(4)(i)(C).)
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.F.3 above. (40 CFR § 122.41(m)(4)(ii).)
5. Notice
 - a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)
 - b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). As of December 21, 2020, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall

comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

G. 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. 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 I.G.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).)
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 V.E.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 I.C above. (40 CFR § 122.41(n)(3)(iv).)
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).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. 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).)

B. 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).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the 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.)

III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)
- B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or as required under 40 C.F.R. chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:
 - 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
 - 2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3).

IV. STANDARD PROVISIONS – RECORDS

- A. Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
 - 2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
 - 3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
 - 4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
 - 5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
 - 6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)
- B. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):
 - 1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and
 - 2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA

copies of records required to be kept by this Order. (40 CFR § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 CFR § 122.41(k).)
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).)
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.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 V.B.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 Regional Water Board and State Water Board. (40 CFR § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.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 V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.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).)
6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B., and shall ensure that all

relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

C. Monitoring Reports

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).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board Name or State Water Board for reporting the results of monitoring, sludge use, or disposal practices. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127.
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board.
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.

D. 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).)

E. Twenty-Four Hour Reporting

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

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

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

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 C.F.R. § 122.41(l)(6)(ii)(A).)
 - b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)
3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

F. Planned Changes

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

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

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E 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 V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

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

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

- A.** The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- B.** 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 part 122.41(a)(2); CWC section 13385 and 13387).
- C.** Any person may be assessed an administrative penalty by the Administrator of USEPA, the Regional Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000. (40 CFR part 122.41(a)(3))
- D.** 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 part 122.41(j)(5)).

- E. 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 part 122.41(k)(2)).

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-5675

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

I. GENERAL MONITORING PROVISIONS

- A.** All samples shall be representative of the waste discharge under conditions of peak load. Quarterly analyses and sampling shall be performed during the 1st quarter (January, February, and March) the 2nd quarter (April, May, and June), the 3rd quarter (July, August, and September), and the 4th quarter (October, November, and December). Semiannual analyses and sampling shall be performed during the 1st quarter (January, February, and March) and the 3rd quarter (July, August, and September). Annual analyses shall be performed during the 3rd quarter (July, August, and September) with the exception of bioassessment per MRP section VIII.C. Should there be instances when monitoring could not be done during these specified months, the Permittee must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of monthly, quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-7 of MRP.
- B.** Pollutants shall be analyzed using the analytical methods described in 40 CFR parts 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board.
- C.** Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Regional Water Board each time a new certification and/or renewal of the certification is obtained.
- D.** Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR part 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Permittee shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.
- E.** The Permittee shall calibrate and perform maintenance procedures on all monitoring instruments to ensure accuracy of measurements, or shall ensure that both equipment activities will be conducted.
- F.** For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G.** Each monitoring report must affirm in writing that “all analyses were conducted at a laboratory certified for such analyses by the Environmental Laboratory Accreditation Program (ELAP), Division of Drinking Water (DDW) or approved by the Executive Officer and in accordance

with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program.”

- H. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Resources Control Board (State Water Board) in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (State Implementation Policy or SIP)*, February 9, 2005, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the RL.
- I. The Permittee shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the Permittee can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section J, below. If the effluent limitation is lower than all the MLs in Appendix 4, SIP, the Permittee must select the method with the lowest ML for compliance purposes. The Permittee shall include in the Annual Summary Report a list of the analytical methods employed for each test.
- J. 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 lowest calibration standard. At no time is the Permittee to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section K, below, the Permittee’s laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.
- K. In accordance with section 2.4.3 of the SIP, the Regional Water Board Executive Officer, in consultation with the State Water Board’s Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the Permittee’s permit in any of the following situations:
 - 1. When the pollutant under consideration is not included in Appendix 4, SIP;
 - 2. When the Permittee and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;
 - 3. When the Permittee agrees to use an ML that is lower than those listed in Appendix 4;
 - 4. When the Permittee demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,
 - 5. When the Permittee uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Permittee, the Regional Water Board, and the State Water Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.If there is any conflict between foregoing provisions and the SIP, the provisions stated in the SIP (section 2.4) shall prevail.

- L. If the Permittee samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with limitations set forth in this Order.
- M. The Permittee shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.
- N. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.
 - 1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.
 - 2. Detection methods used for E.coli shall be those presented in Table 1A of 40 CFR part 136 or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure*, or any improved method determined by the Regional Water Board to be appropriate.
- O. The Permittee 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

II. 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 location of the receiving water monitoring stations is presented in Figure E-1.

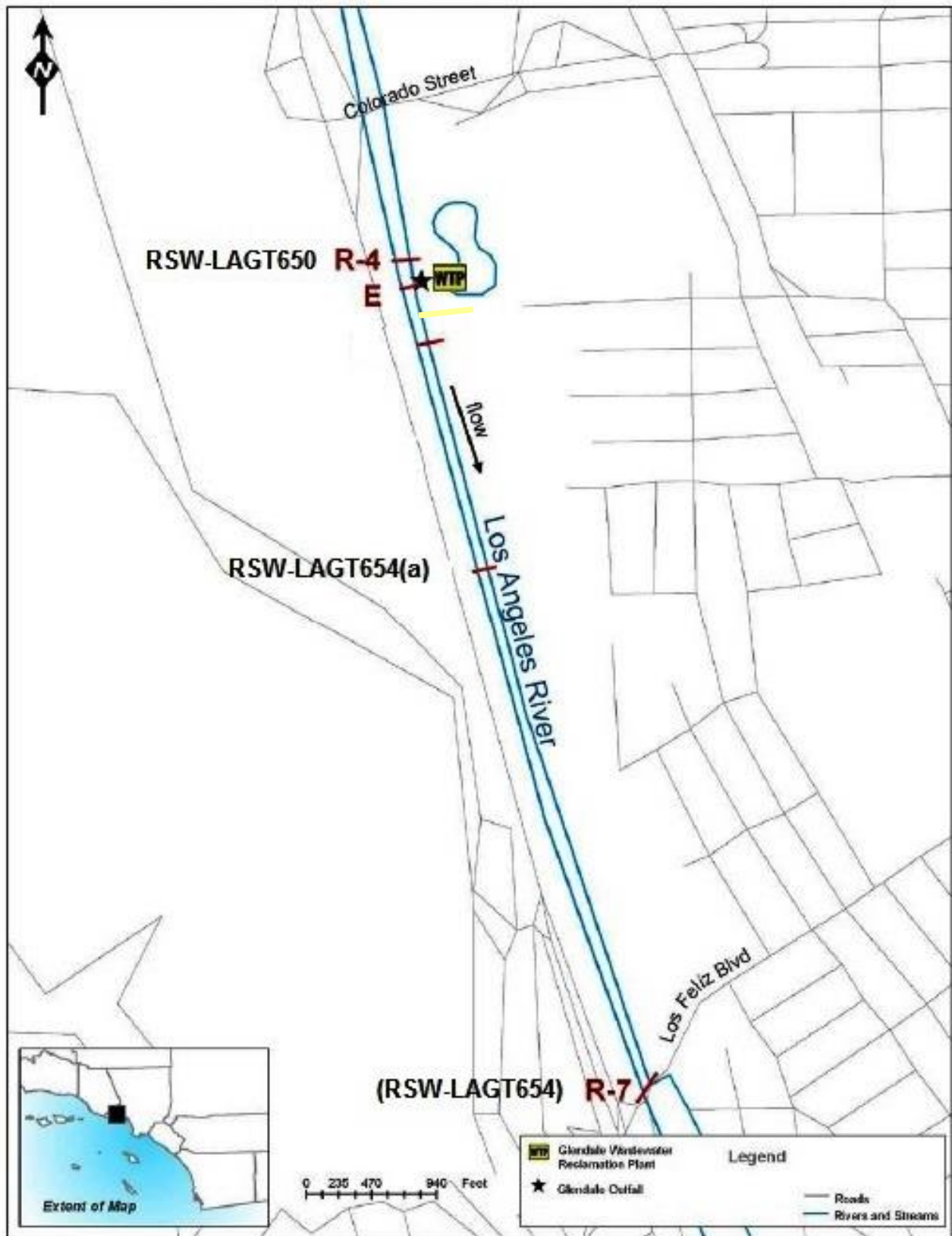
Table E-1. Monitoring Station Locations

| Discharge Point Name | Monitoring Location Name | Monitoring Location Description |
|---|--------------------------|--|
| Influent Monitoring Station | | |
| -- | INF-001 | Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained. Latitude: 34.13932° Longitude: -118.27339° |
| Effluent Monitoring Station | | |
| 001 | EFF-001A | The effluent sampling station for all constituents (except for bacteria and turbidity) shall be located downstream of the dechlorination process and inside the plant, where representative samples can be obtained. Latitude: 34.13720° Longitude: -118.27422° |
| 001 | EFF-001B | The effluent sampling station for bacteria and turbidity shall be located downstream of any in-plant return flows and after final disinfection process, where representative samples of the effluent can be obtained. Latitude: 34.13719° Longitude: -118.27346° |
| Receiving Water Monitoring Stations | | |
| -- | RSW-LAGT650 | Los Angeles River, approximately 214 feet upstream of Discharge Point 001. (Previously designated as R-4). Latitude: 34.13770° Longitude: -118.27532° |
| -- | RSW-LAGT654 | Los Angeles River at Los Feliz Boulevard (upstream from Los Feliz Boulevard). (Previously designated as R-7). Latitude: 34.12422° Longitude: -118.27112° |
| -- | RSW-LAGT654(a) | Alternate monitoring location in lieu of RSW-LAGT654 located at 2,540 feet downstream of Discharge Point 001. This alternate monitoring station shall be used until RSW-LAGT654 becomes available. Latitude: 34.13000° Longitude: -118.27314° |
| TMDL Wet-Weather Flow Monitoring Station | | |
| -- | RSW-003D | TMDL Wet-weather Flow Monitoring Station at the County of Los Angeles Department of Public Works' Wardlow Gage Station No. F319-R, in Los Angeles River, just below Wardlow River Road. Latitude: 33.81598° Longitude: -118.20552° |

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

The receiving water monitoring station RSW-LAGT654 is temporarily unavailable for sampling. The United States Army Corps of Engineers has built a "massive 3-mile wall of sand, canvas, and wire mesh" along the Los Angeles River. The wall was installed to serve as a flood control barrier during heavy El Niño storms. Although the El Niño storm prediction has been lifted, the wall still remains. There is no schedule from the Army Corps of Engineers on when this wall will be removed. Due to limited access and unsafe working conditions in conducting sampling and monitoring at RSW-LAGT654, an alternate monitoring location RSW-LAGT654(a), located approximately 2,540 feet downstream of Discharge Point 001 was approved. The Discharger shall resume monitoring at location RSW-LAGT654 when access at RSW-LAGT654 is restored.

Figure E-1. Los Angeles-Glendale WRP Receiving Water Stations



III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

1. Determine compliance with NPDES permit conditions.
2. Assess treatment plant performance.
3. Assess effectiveness of the Pretreatment Program

A. Monitoring Location INF-001

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

Table E-2. Influent Monitoring

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|--------------------------------|---------|-------------------|----------------------------|---------------------------------|
| Flow | mgd | recorder | continuous ¹ | 1 |
| pH | pH unit | grab | weekly | 2 |
| Total suspended solids | mg/L | 24-hour composite | weekly | 2 |
| BOD ₅ 20°C | mg/L | 24-hour composite | weekly | 2 |
| Ammonia nitrogen | mg/L | 24-hour composite | quarterly | 2 |
| Cadmium | µg/L | 24-hour composite | quarterly | 2 |
| Copper | µg/L | 24-hour composite | quarterly | 2 |
| Lead | µg/L | 24-hour composite | quarterly | 2 |
| Zinc | µg/L | 24-hour composite | quarterly | 2 |
| Cyanide | µg/L | grab | quarterly | 2 |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 24-hour composite | quarterly | 2 |
| Diazinon | µg/L | 24-hour composite | quarterly | 2 |
| Dibenzo(a,h)Anthracene | µg/L | 24-hour composite | quarterly | 2 |
| Dieldrin | µg/L | 24-hour composite | quarterly | 2 |
| PCBs as aroclors ³ | µg/L | 24-hour composite | annually | 2 |
| PCBs as congeners ⁴ | pg/L | 24-hour composite | annually | 2 |

¹ Total daily flow, monthly average flow, and instantaneous peak daily flow (24-hr basis) shall be reported. Actual monitored flow shall be reported (not the maximum flow, i.e., design capacity).

² Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

³ PCBs as Aroclors is the sum of PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, and PCB 1260 when monitoring using USEPA method 608.

⁴ PCBs as congeners shall mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified, or quantified as co-elutions as appropriate. PCBs as congeners shall be analyzed using method EPA 1668c for three years and may be discontinued for the remaining life of this Order if none of the PCB congeners are detected 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

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|--|-------|---|----------------------------|---------------------------------|
| Remaining USEPA priority pollutants ⁵ excluding asbestos and PCBs | µg/L | 24-hour composite; grab for VOCs and chromium | semiannually | ² |

IV. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

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

A. Monitoring Location EFF-001

1. Minimum Level (ML) and Analytical Method Selection

USEPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. For the purposes of the NPDES program, when more than one test procedure is approved under 40 C.F.R. part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 C.F.R sections 122.21(e)(3) and 122.44(i)(1)(iv) apply to the selection of a sufficiently sensitive analytical method for the purposes of monitoring and reporting under NPDES permits, including review of permit applications. A USEPA-approved analytical method is sufficiently sensitive where:

- a. The ML is at or below both the level of the applicable water quality criterion/objective and the permit limitation for the measured pollutant or pollutant parameter; or
 - b. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
 - c. The method has the lowest ML of the USEPA-approved analytical methods where none of the USEPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.
2. The MLs in SIP Appendix 4 remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for

monitoring data, reported as aroclor results, that will be used for assessing compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

⁵ Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

analytical methods listed in the SIP. For instance, USEPA Method 1631E for mercury is not currently listed in SIP Appendix 4, but it is published with an ML of 0.5 ng/L that makes it a sufficiently sensitive analytical method. Similarly, USEPA Method 245.7 for mercury is published with an ML of 5 ng/L.

3. The Permittee shall monitor the discharge of tertiary-treated effluent at EFF-001A, except for bacteria and turbidity. Bacteria and turbidity shall be monitored at EFF-001B. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding ML:

Table E-3. Effluent Monitoring

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method and (Minimum Level, units), respectively |
|-------------------------|------------------------|-------------|----------------------------|--|
| Total waste flow | mgd | recorder | continuous ⁶ | ⁶ |
| Turbidity | NTU | recorder | continuous ⁶ | ⁷ |
| Total residual chlorine | mg/L | recorder | continuous ⁸ | -- |
| Total residual chlorine | mg/L | grab | daily ⁹ | ⁷ |
| Total coliform | MPN/100mL or CFU/100ml | grab | daily ¹⁰ | ⁷ |
| E. coli | MPN/100mL or CFU/100ml | grab | daily ¹⁰ | ⁷ |
| Temperature | °F | grab | daily ¹¹ | ⁷ |
| pH | pH units | grab | daily ¹¹ | ⁷ |

⁶ Where continuous monitoring of a constituent is required, the following shall be reported:
 Total waste flow – Total daily and peak daily flow (24-hr basis);
 Turbidity – Maximum daily value, total amount of time each day the turbidity exceeded 5 NTU, flow proportioned average daily value. Grab sample shall be collected at monitoring location EFF-001B. It shall be used to determine compliance with the 5 NTU limit. A flow-weighted 24-hour composite sample may be used in place of the recorder to determine the flow-proportioned average daily value.

⁷ Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

⁸ Total residual chlorine shall be recorded continuously. The recorded data shall be maintained by the Permittee for at least five years. The Permittee shall extract the maximum daily peak, and average daily from the recorded media and shall be reported on the monthly monitoring reports. In addition, calibration records for the TRC analyzer shall be submitted quarterly. The continuous monitoring data are not intended to be used for compliance determination purposes.

⁹ Daily grab samples shall be collected at monitoring location EFF-001A, Monday through Friday only, except for holidays. Analytical results of daily grab samples will be used to determine compliance with total residual chlorine effluent limitation. Furthermore, additional monitoring requirements specified in section IV.A.4. shall be followed.

¹⁰ Daily grab samples for total coliform, and E.coli shall be collected at monitoring location EFF-001B, Monday through Friday only, except for holidays.

¹¹ Daily grab samples shall be collected at monitoring location EFF-001A, Monday through Friday only, except for holidays.

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method and (Minimum Level, units), respectively |
|--|------------------------------|-------------------|----------------------------|--|
| Settleable Solids | mL/L | grab | daily ¹¹ | 7 |
| Total Suspended Solids (TSS) | mg/L | 24-hour composite | daily ¹¹ | 7 |
| BOD ₅ 20°C | mg/L | 24-hour composite | weekly ¹² | 7 |
| Oil and grease | mg/L | grab | weekly | 7 |
| Dissolved oxygen | mg/L | grab | monthly | 7 |
| Total Dissolved Solids | mg/L | 24-hour composite | monthly | 7 |
| Sulfate | mg/L | 24-hour composite | monthly | 7 |
| Chloride | mg/L | 24-hour composite | monthly | 7 |
| Ammonia Nitrogen | mg/L | 24-hour composite | monthly | 7 |
| Nitrite nitrogen | mg/L | 24-hour composite | monthly | 7 |
| Nitrate nitrogen | mg/L | 24-hour composite | monthly | 7 |
| Organic nitrogen | mg/L | 24-hour composite | monthly | 7 |
| Total nitrogen | mg/L | 24-hour composite | monthly | 7 |
| Total phosphorus | mg/L | 24-hour composite | monthly | 7 |
| Surfactants (MBAS) | mg/L | 24-hour composite | monthly | 7 |
| Surfactants (CTAS) | mg/L | 24-hour composite | monthly | 7 |
| Total hardness (CaCO ₃) | mg/L | 24-hour composite | monthly | 7 |
| Chronic toxicity | Pass or Fail, % Effect (TST) | 24-hour composite | monthly | 7,13 |
| Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium) | pCi/L | 24-hour composite | semiannually | 14 |
| Cadmium | µg/L | 24-hour composite | monthly | 7 |
| Copper | µg/L | 24-hour composite | monthly | 7 |
| Lead | µg/L | 24-hour composite | monthly | 7 |
| Zinc | µg/L | 24-hour composite | monthly | 7 |

¹² If the result of the weekly BOD analysis yields a value greater than the AMEL, the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the BOD AWEL and AMEL are demonstrated; after which the frequency shall revert to weekly.

¹³ The Permittee shall conduct whole effluent toxicity monitoring as outlined in section V. Please refer to section V.A.7 of this MRP for the accelerated monitoring schedule. The median monthly summary result shall be reported as "Pass" or "Fail." The maximum daily single result shall be reported as "Pass" or "Fail" and "% Effect." When there is a discharge on more than one day in a calendar month period, up to three independent toxicity tests may be conducted when one toxicity test results in "Fail."

¹⁴ Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and uranium.

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method and (Minimum Level, units), respectively |
|---|-------|-------------------|----------------------------|--|
| Cyanide | µg/L | grab | monthly | 7 |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 24-hour composite | monthly | 7 |
| Diazinon | µg/L | 24-hour composite | monthly | 7 |
| Dibenzo(a,h)Anthracene | µg/L | 24-hour composite | monthly | 7 |
| Dieldrin | µg/L | 24-hour composite | monthly | 7 |
| Antimony | µg/L | 24-hour composite | quarterly | 7 |
| Arsenic | µg/L | 24-hour composite | quarterly | 7 |
| Beryllium | µg/L | 24-hour composite | quarterly | 7 |
| Total Chromium | µg/L | grab | quarterly | 7 |
| Chromium III | µg/L | calculation | quarterly | 7 |
| Chromium VI | µg/L | grab | quarterly | 7 |
| Mercury ¹⁵ | µg/L | 24-hour composite | quarterly | 7 |
| Nickel | µg/L | 24-hour composite | quarterly | 7 |
| Selenium | µg/L | 24-hour composite | quarterly | 7 |
| Silver | µg/L | 24-hour composite | quarterly | 7 |
| Thallium | µg/L | 24-hour composite | quarterly | 7 |
| 2,3,7,8-TCDD ¹⁶ | pg/L | 24-hour composite | semiannually | 7 |
| Perchlorate | µg/L | grab | semiannually | 17 |
| 1,4-Dioxane | µg/L | grab | semiannually | 17 |
| 1,2,3-Trichloropropane | µg/L | grab | semiannually | 17 |
| Methyl tert-butyl-ether (MTBE) | µg/L | grab | semiannually | 17 |
| Boron | mg/L | 24-hour composite | quarterly | 7 |
| Fluoride | mg/L | 24-hour composite | quarterly | 7 |
| 2,4-Dichlorophenoxy-acetic acid (2,4-D) | µg/L | 24-hour composite | semiannually | 7 |
| 2,4,5-TP (Silvex) | µg/L | 24-hour composite | semiannually | 7 |

¹⁵ The mercury effluent samples shall be analyzed using EPA method 1631E, per 40 CFR part 136.

¹⁶ In accordance with the SIP, the Discharger shall conduct monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-LAGT650, located upstream of discharge point 001. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding Toxicity Equivalence Factor (TEF_i), (i.e., TEQ_i = C_i x TEF_i). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17} (\text{TEQ}_i) = \sum_{1}^{17} (C_i)(\text{TEF}_i)$$

¹⁷ Emerging chemicals include 1,4-dioxane (USEPA 8270M test method), perchlorate (USEPA 314 test method, or USEPA method 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA 504.1, 8260B test method, or USEPA 524.2 in SIM mode), and methyl tert-butyl ether (USEPA 8260B test method or USEPA method 624 if a detection level of less than 5 µg/L is achieved, and if the Permittee received ELAP certification to run USEPA method 624).

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method and (Minimum Level, units), respectively |
|---|-------|----------------------------------|----------------------------|--|
| Pesticide ¹⁸ | µg/L | 24-hour composite | semiannually | ⁷ |
| Total trihalomethanes ¹⁹ | µg/L | grab/calculated sum | semiannually | ⁷ |
| PCBs as aroclors ²⁰ | µg/L | 24-hour composite | annually | ⁷ |
| PCBs as congeners ²¹ | pg/L | 24-hour composite | annually | ⁷ |
| Remaining USEPA priority pollutants ²² excluding asbestos and PCBs | µg/L | 24-hour composite; grab for VOCs | semiannually | ⁷ |

4. Total Residual Chlorine Additional Monitoring

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

- a. Total residual chlorine concentration excursions of up to 0.3 mg/L lasting greater than 15 minutes; or
- b. Total residual chlorine concentration peaks in excess of 0.3 mg/L lasting greater than 1 minute.
- c. Additional grab samples need not be taken if it can be demonstrated that a stoichiometrically appropriate amount of dechlorination chemical has been added to effectively dechlorinate the effluent to 0.1 mg/L or less for peaks in excess of 0.3 mg/L lasting more than 1 minute, but not for more than five minutes.

¹⁸ Pesticides are, for the purposes of this Order, those six constituents referenced in 40 CFR part 125.58(p), (demeton, guthion, malathion, mirex, methoxychlor, and parathion).

¹⁹ Total trihalomethanes is the sum of concentrations of the trihalomethane compounds: bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

²⁰ PCBs as Aroclors is the sum of PCB 1016, PCB 1221, PCB 1232, PCB 1242, PCB 1248, PCB 1254, and PCB 1260 when monitoring using USEPA method 608.

²¹ PCBs as congeners shall mean the sum of 41 congeners when monitoring using USEPA proposed method 1668c. PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105,110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified, or quantified as co-elutions as appropriate. PCBs as congeners shall be analyzed using method EPA 1668c for three years and may be discontinued for the remaining life of this Order if none of the PCB congeners are detected 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 WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

²² Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing

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

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

2. Sample Volume and Holding Time

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

3. Chronic Freshwater Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity <1 ppt, the Permittee shall conduct the following chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR part 136). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

- a. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).
- b. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).
- c. A static toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

4. Species Sensitivity Screening

Species sensitivity screening shall be conducted beginning the first month the permit is in effect. The Permittee shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Ceriodaphnia dubia* and the *Pimephales promelas*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. However, that same sample shall be used to renew both the *Ceriodaphnia dubia* and the *Pimephales promelas*. If the result of all three species is "Pass," then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. If two or more species result in "Fail," then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required (24 months later).

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the intermittent discharge is only during wet weather, rescreening is not required. If rescreening is necessary, the Permittee shall rescreen with

the fish, an invertebrate, and the alga species previously referenced and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Permittee shall proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

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

5. Quality Assurance and Additional Requirements

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

- a. The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1 and Appendix B, Table B-1. The null hypothesis (H_0) for the TST approach is: Mean discharge IWC response $\leq 0.75 \times$ Mean control response. A test result that rejects this null hypothesis is reported as “Pass.” A test result that does not reject this null hypothesis is reported as “Fail.” The relative “Percent Effect” at the discharge IWC is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$. This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations - in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances.
- b. The Median Monthly Effluent Limit (MMEL) for chronic toxicity only applies when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”
- c. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013) (see Table E-4, below), then the Permittee must re-sample and re-test within 14 days.

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

| Species & USEPA Test Method Number | Test Acceptability Criteria (TAC) |
|--|--|
| Fathead Minnow, <i>Pimephales promelas</i> , Larval Survival and Growth Test Method 1000.0 (Table 1 of the test method, above) | 80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg. (required) |

| Species & USEPA Test Method Number | Test Acceptability Criteria (TAC) |
|--|---|
| Daphnid, <i>Ceriodaphnia dubia</i> , Survival and Reproduction Test Method 1002.0. (Table 3 of the test method, above) | 80% or greater survival of all control organisms and an average of 15 or more young per surviving female in the control solutions. 60% of surviving control females must produce three broods. (required) |
| Green Alga, <i>Selenastrum capricornutum</i> , Growth Toxicity Test Method 1003.0. (Table 3 of the test method, above) | Mean cell density of at least 1×10^6 cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required) |

- d. Dilution water and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.
- e. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using EC25²³.
- f. The Permittee shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

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 Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Permittee shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. 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. At minimum, the work plan shall include:

- a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
 - b. A description of the Facility’s methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility.
 - 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).
- 7. Accelerated Monitoring Schedule for Median Monthly Summary Result: “Fail”; and Accelerated Monitoring Schedule for Maximum Daily Single Result: “Fail and % Effect ≥50.”**

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

²³ 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.

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

Once the Permittee becomes aware of this result, the Permittee shall implement an accelerated monitoring schedule within seven calendar days for the *Ceriodaphnia dubia* test, and within 5 calendar days for both the *Pimephales promelas* and *Selenastrum capricornutum* tests. However, if the sample is contracted out to a commercial laboratory, the Permittee shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Permittee becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass", the 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", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

8. TRE Process

During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail", "Percent Effect") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL and MMEL.

- a. **Preparation and Implementation of Detailed TRE Work Plan.** The 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) and, within 15 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:
 - i. Further actions by the Permittee to investigate, identify, and correct the causes of toxicity.
 - ii. Actions the Permittee will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
 - iii. A schedule for these actions, progress reports, and the final report.
- b. **TIE Implementation.** The 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: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Chronic TIE Manual: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

- c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Permittee shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
- d. The Permittee shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE process is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
- e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.
- f. The Board may consider the results of any TIE/TRE studies in an enforcement action.

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:

- a. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-7.
- b. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- c. The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.
- d. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Permittee shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.
- e. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.
- f. Graphical plots clearly showing the laboratory's performance for the reference toxicant for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.
- g. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Regional Water Board Chief Deputy Executive Officer or the Executive Officer.

B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Permittee must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not 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.
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 Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

C. Chlorine Removal

1. Except with prior approval from the Executive Office of the Regional Water Board, chlorine shall not be removed from bioassay samples. Chlorine may be removed from the facility's effluent bioassay samples in the laboratory when the recycled water demand is high and there is no effluent water available for sampling over the weir after the dechlorination process.

VI. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

VII. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location RSW-LAGT650 and RSW-LAGT654

1. The Discharger shall monitor Los Angeles River at RSW-LAGT650 and RSW-LAGT654 as follows:

Table E-5. Receiving Water Monitoring Requirements

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|------------|-------|-------------|----------------------------|---------------------------------|
| Total flow | cfs | calculation | monthly | -- |
| Turbidity | NTU | grab | quarterly | ²⁴ |

²⁴ Pollutants shall be analyzed using the analytical methods described in 40 CFR part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Board. For

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|-------------------------------------|------------------------|-------------|----------------------------|---------------------------------|
| Total residual chlorine | mg/L | grab | weekly | ²⁴ |
| E. coli | MPN/100ml or CFU/100ml | grab | weekly | ²⁴ |
| Temperature | °F | grab | weekly | ²⁴ |
| pH | pH units | grab | weekly | ²⁴ |
| Settleable Solids | mL/L | grab | quarterly | ²⁴ |
| Total Suspended Solids | mg/L | grab | quarterly | ²⁴ |
| BOD ₅ 20°C | mg/L | grab | quarterly | ²⁴ |
| Total Organic Carbon | mg/L | grab | quarterly | ²⁴ |
| Oil and grease | mg/L | grab | quarterly | ²⁴ |
| Dissolved oxygen | mg/L | grab | weekly | ²⁴ |
| Conductivity | µmhos/cm | grab | quarterly | ²⁴ |
| Total Dissolved Solids | mg/L | grab | quarterly | ²⁴ |
| Sulfate | mg/L | grab | quarterly | ²⁴ |
| Chloride | mg/L | grab | quarterly | ²⁴ |
| Ammonia nitrogen | mg/L | grab | weekly ²⁵ | ²⁴ |
| Nitrate nitrogen | mg/L | grab | weekly ²⁵ | ²⁴ |
| Nitrite nitrogen | mg/L | grab | weekly ²⁵ | ²⁴ |
| Organic nitrogen | mg/L | grab | monthly | ²⁴ |
| Total kjeldahl nitrogen (TKN) | mg/L | grab | monthly | ²⁴ |
| Total nitrogen | mg/L | grab | monthly | ²⁴ |
| Total phosphorus | mg/L | grab | quarterly | ²⁴ |
| Orthophosphate-P | mg/L | grab | quarterly | ²⁴ |
| Surfactants (MBAS) | mg/L | grab | quarterly | ²⁴ |
| Surfactants (CTAS) | mg/L | grab | quarterly | ²⁴ |
| Total hardness (CaCO ₃) | mg/L | grab | quarterly | ²⁴ |

any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

²⁵ Regional Board Resolution No. R12-010, *Los Angeles River Nitrogen Compounds and Related Effects TMDL* (Nitrogen Compounds TMDL), requires weekly receiving water monitoring to ensure compliance with the water quality objective. The frequency of monitoring may be re-evaluated at the conclusion of the third year of confirmatory receiving water monitoring described in section VIII.B of this MRP.

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|--------------------------------|------------------------------|-------------|----------------------------|---------------------------------|
| Chronic toxicity ²⁶ | Pass or Fail, % Effect (TST) | grab | quarterly | ²⁴ |
| Cadmium | µg/L | grab | quarterly | ²⁴ |
| Copper | µg/L | grab | quarterly | ²⁴ |
| Lead | µg/L | grab | quarterly | ²⁴ |
| Zinc | µg/L | grab | quarterly | ²⁴ |
| Cyanide | µg/L | grab | quarterly | ²⁴ |
| Bis(2-Ethylhexyl)Phthalate | µg/L | grab | quarterly | ²⁴ |
| Diazinon ²⁷ | µg/L | grab | quarterly | ²⁴ |
| Dibenzo(a,h)Anthracene | µg/L | grab | quarterly | ²⁴ |
| Dieldrin | µg/L | grab | quarterly | ²⁴ |
| Antimony | µg/L | grab | quarterly | ²⁴ |
| Arsenic | µg/L | grab | quarterly | ²⁴ |
| Beryllium | µg/L | grab | quarterly | ²⁴ |
| Chromium III | µg/L | calculation | quarterly | ²⁴ |
| Chromium VI | µg/L | grab | quarterly | ²⁴ |
| Total Chromium | µg/L | grab | quarterly | ²⁴ |
| Mercury ²⁸ | µg/L | grab | quarterly | ²⁴ |
| Nickel | µg/L | grab | quarterly | ²⁴ |
| Selenium | µg/L | grab | quarterly | ²⁴ |
| Silver | µg/L | grab | quarterly | ²⁴ |
| Thallium | µg/L | grab | quarterly | ²⁴ |
| Methyl tert-butyl-ether (MTBE) | µg/L | grab | semiannually | ²⁹ |
| Perchlorate | µg/L | grab | semiannually | ²⁹ |

²⁶ The Permittee shall conduct whole effluent toxicity monitoring as outlined in section V. Please refer to section V.A.7 of this MRP for the accelerated monitoring schedule. The median monthly summary result is a threshold value for a determination of meeting the narrative receiving water objective and shall be reported as “Pass” or “Fail.” The maximum daily single result is a threshold value for a determination of meeting the narrative receiving water objective and shall be reported as “Pass or Fail” and “% Effect.” Up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.” If the chronic toxicity median monthly threshold at the immediate downstream receiving water location is not met and the toxicity cannot be attributed to upstream toxicity, as assessed by the Permittee, then the Permittee shall initiate accelerated monitoring. For example, if the chronic toxicity median monthly threshold of the receiving water at both upstream and downstream stations is not met, but the effluent chronic toxicity median monthly effluent limitation was met, then accelerated monitoring need not be implemented.

²⁷ Diazinon sampling shall be conducted concurrently with the receiving water chronic toxicity sampling.

²⁸ The mercury samples shall be analyzed using EPA method 1631E, per 40 CFR part 136.

²⁹ Emerging chemicals include 1,4-dioxane (USEPA 8270M test method), perchlorate (USEPA 314 test method, or USEPA method 331 if a detection limit of less than 6 µg/L is achieved), 1,2,3-trichloropropane (USEPA 504.1, 8260B test method, or USEPA 524.2 in SIM mode), and methyl tert-butyl ether (USEPA 8260B test method or USEPA method 624 if a detection level of less than 5 µg/L is achieved, and if the Permittee received ELAP certification to run USEPA method 624).

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|---|-------|-------------|----------------------------|---------------------------------|
| 1,2,3-Trichloropropane | µg/L | grab | semiannually | 29 |
| 1,4-Dioxane | µg/L | grab | semiannually | 29 |
| 2,3,7,8-TCDD ³⁰ | pg/L | grab | semiannually | 24 |
| Chemical oxygen demand (COD) | mg/L | grab | quarterly | 24 |
| Fluoride | mg/L | grab | quarterly | 24 |
| Boron | mg/L | grab | quarterly | 24 |
| Pesticide ³¹ | µg/L | grab | semiannually | 24 |
| 2,4-D | µg/L | grab | semiannually | 24 |
| 2,4,5-TP (Silvex) | µg/L | grab | semiannually | 24 |
| PCBs as aroclors ²⁰ | µg/L | grab | annually | 24 |
| PCBs as congeners ²¹ | pg/L | grab | annually | 24 |
| Remaining USEPA priority pollutants ³² excluding asbestos and PCBs | µg/L | grab | semiannually | 24 |

- Receiving water samples may not be taken during or within 72-hours following the flow of rainwater runoff into the Los Angeles River. For small storm event that creates minimal increase in flow to the river, the 72-hour waiting period to collect a sample may not be necessary. Whenever it is safe to wade in the river, receiving water sampling shall resume immediately. Sampling may be rescheduled at receiving water stations if weather and/or flow conditions would endanger personnel collecting receiving water samples. The monthly monitoring report shall note such occasions.

B. Ammonia Receiving Water Confirmatory Monitoring

The *Los Angeles River Nutrient TMDL*, Resolution No. R12-010 requires the Permittee to evaluate the effects of the ammonia SSO in the receiving water. The Permittee shall submit a workplan addressing the effects of ammonia SSO in the receiving water, specifying the particular test method that would be used, and shall submit the workplan no later than 90 days after the effective date of this Order to the Executive Officer for approval. The workplan shall include the following requirements per Resolution No. R12-010.

- The Permittee must conduct confirmatory receiving water monitoring to verify that water quality conditions are similar to those of the 2003 ammonia WER study period.

³⁰ In accordance with the SIP, the Discharger shall conduct monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-LAG650, located upstream of discharge point 001. The Discharger shall use the appropriate Toxicity Equivalence Factor (TEF) to determine Toxic Equivalence (TEQ). Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding Toxicity Equivalence Factor (TEF_i), (i.e., TEQ_i = C_i x TEF_i). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_1^{17} (\text{TEQ}_i) = \sum_1^{17} (C_i)(\text{TEF}_i)$$

³¹ Pesticides are, for purposes of this Order, those six constituents referred in 40 CFR part 125.58(p), (demeton, guthion, malathion, mirex, methoxychlor, and parathion).

³² Priority pollutants are those constituents referred to in 40 CFR part 401.15; a list of these pollutants is provided as Appendix A to 40 CFR part 423.

Confirmatory monitoring will include concurrent chemistry and toxicity receiving water monitoring. The toxicity monitoring will be supplemental to three species toxicity testing required in the NPDES permits and must utilize *Hyallolela azteca* as the test organism. Temperature, pH, and ammonia receiving water data will be collected at the time and location of collection of the toxicity samples.

The 2003 ammonia WER study site was located at station LA2, downstream of LAGWRP at Los Feliz (aka RSW-LAGT654). Please see Table 2 and Table 11 of the Final Staff Report of Resolution No. 2007-005.

2. Monitoring of chemistry and toxicity testing should include a minimum of three sample events per year for three years. Monitoring sites should be representative of those investigated in the Los Angeles River during the SSO study, as well as one location in the reach immediately downstream of where the SSO is applied. Two of the three sample events should be conducted during dry weather. Following the first three-year monitoring cycle, if there is no increase in toxicity attributable to ammonia, monitoring may be reduced to once per year at each site, as appropriate. The number and type of events during the year should be as described above.
3. Chemistry monitoring to include all nitrogen species, including total ammonia, pH, hardness, temperature, sodium, potassium, calcium, BOD, sulfate, total dissolved solids, and chloride.
4. If confirmatory monitoring indicates toxicity due to ammonia or a change in the waterbody that could impact the calculation or application of the SSOs, including either its chemical characteristics or the aquatic species present, including early life stages of fish, the POTW shall develop and submit a plan for reevaluating the SSOs to the Executive Officer.
5. In the event that ammonia concentrations are consistently at levels below effluent limitations that would be set without use of the SSO, monitoring to confirm the SSOs is not necessary. The effluent limitation for AMEL without use of SSO is equal to 2.2 mg/L.

C. Bioassessment Monitoring Program

1. The bioassessment program shall be conducted annually in the spring/summer period and include an analysis of the community structure of the instream macroinvertebrate assemblages, the community structure of the instream algal assemblages (benthic diatoms and soft-bodied algae), chlorophyll a and biomass for instream algae, and physical habitat assessment at the 10 random monitoring stations designated by the Los Angeles River Watershed Monitoring Program.

This program shall be implemented by appropriately trained staff. Alternatively, a professional subcontractor qualified to conduct bioassessments may be selected to perform the bioassessment work for the Discharger. Analyses of the results of the bioassessment monitoring program, along with photographs of the monitoring site locations taken during sample collection, shall be submitted in the corresponding annual report. If another stakeholder, or interested party in the watershed subcontracts a qualified professional to conduct bioassessment monitoring during the same season and at the same location as specified in the MRP, then the Discharger may, in lieu of duplicative sampling, submit the data, a report interpreting the data, photographs of the site, and related QA/QC documentation in the corresponding annual report.

2. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Regional Board upon request. The document must contain step-by-step field, laboratory and data entry procedures, as well

as, related QA/QC procedures. The SOP must also include specific information about each bioassessment program including: assessment program description, its organization and the responsibilities of all its personnel; assessment project description and objectives; qualifications of all personnel; and the type of training each member has received.

3. Field sampling must conform to the SOP established for the California Stream Bioassessment Procedure (CSBP) or more recently established sampling protocols, such as used by the Surface Water Ambient Monitoring Program (SWAMP). Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and gross errors. Field inspections shall be planned with random visits and shall be performed by the Discharger or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.
4. A taxonomic identification laboratory shall process the biological samples that usually consist of subsampling organisms, enumerating and identifying taxonomic groups and entering the information into an electronic format. The Regional Board may require QA/QC documents from the taxonomic laboratories and examine their records regularly. Intra-laboratory QA/QC for subsampling, taxonomic validation and corrective actions shall be conducted and documented. Biological laboratories shall also maintain reference collections, vouchered specimens (the Discharger may request the return of their sample voucher collections) and remnant collections. The laboratory should participate in an (external) laboratory taxonomic validation program at a recommended level of 10% or 20%. External QA/QC can be arranged through the California Department of Fish and Game’s Aquatic Bioassessment Laboratory located in Rancho Cordova, California

D. Monitoring Location RSW-003D, Los Angeles River Wardlow Stations

1. The Discharger shall report the maximum daily flow at Los Angeles River, downstream of the discharge, at the LA County Department of Public Works’ Gage Station No. F319-R Los Angeles River below Wardlow. For the purposes of this permit, this station is also known as RSW-003D. This information is necessary to determine the wet-weather and dry-weather conditions of the river as defined by *Los Angeles River Metals TMDL*. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

Table E-6. TMDL Receiving Water Monitoring Requirements

| Parameter | Units | Sample Type | Minimum Sampling Frequency | Required Analytical Test Method |
|--------------------|-------|-------------|----------------------------|---------------------------------|
| Maximum Daily Flow | cfs | recorder | daily | N/A |

IX. OTHER MONITORING REQUIREMENTS

A. Los Angeles River Watershed Monitoring Program (LARWMP)

1. Pursuant to the 40 CFR section 122.41(j) and section 122.48(b), the monitoring program for a discharger receiving an NPDES permit must be designed to determine compliance with NPDES permit terms and conditions, and demonstrate that State water quality standards are met.

Since compliance monitoring focuses on the effects of a point source discharge, it is not designed to assess impacts from other sources of pollution (e.g., non-point source run-

off, aerial fallout) or to evaluate the current status of important ecological resources on a regional basis.

The LARWMP was developed for the Los Angeles River Watershed by the City of Los Angeles in cooperation with Los Angeles Regional Water Quality Control Board and USEPA staff, as well as several other local stakeholders. The LARWMP was approved by the Executive Officer on August 8, 2008.

The goals of the comprehensive watershed-wide monitoring program include evaluating or assessing: compliance with receiving water objectives, trends in surface water quality, impacts to beneficial uses, the health of the biological community, data needs for modeling contaminants of concern, and attaining the goals of the TMDLs under implementation in the Los Angeles River.

2. The Discharger shall participate in the implementation of the LARWMP as indicated in that plan. In coordination with interested stakeholders in the Los Angeles River Watershed, LARWMP shall conduct instream bioassessment monitoring once a year, during the spring/summer period (unless an alternate sampling period is approved by the Executive Officer). Over time, bioassessment monitoring will provide a measurement of the physical condition of the waterbody and the integrity of its biological communities.
3. Changes to the compliance monitoring program may be required over time to fulfill the goals of the watershed-wide monitoring program, while retaining the compliance monitoring component required to evaluate compliance with the NPDES permit. Revisions to the Discharger's program will be made under the direction of the Regional Water Board's Executive Officer, as necessary, to accomplish the goal, and may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, and/or the number of samples collected.

B. Tertiary Filter Treatment Bypasses

1. During any day that filters are bypassed, the Discharger shall monitor the effluent for BOD, suspended solids, settleable solids, and oil and grease, on daily basis, until it is demonstrated that the filter "bypass" has not caused an adverse impact on the receiving water.
2. The Discharger shall maintain chronological log of tertiary filter treatment process bypasses, to include the following:
 - a. Date and time of bypass start and end.
 - b. Total duration time.
 - c. Estimated total volume bypassed.
3. The Discharger shall notify Regional Water Board staff by telephone within 24 hours of the filter bypass event.
4. The Discharger shall submit a written report to the Regional Water Board, according to the corresponding monthly self-monitoring report schedule. The report shall include, at a minimum, the information from the chronological log. Results from the daily effluent monitoring, required by IX.B.1. above, shall be submitted to the Regional Water Board as the results become available.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Permittee shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled “Summary of Non-Compliance” which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements, as well as all excursions of effluent limitations.
4. The Permittee shall inform the Regional Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board’s California Integrated Water Quality System (CIWQS) Program website http://www.waterboards.ca.gov/water_issues/programs/ciwqs/. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Discharger shall submit monthly, 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 Permittee samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with limitations set forth in this Order.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table E-7. Monitoring Periods and Reporting Schedule

| Sampling Frequency | Monitoring Period Begins On... | Monitoring Period | SMR Due Date |
|--------------------|--|---|--|
| Continuous | Permit effective date | All | Submit with monthly SMR |
| Daily | Permit effective date | (Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling. | Submit with monthly SMR |
| Weekly | Sunday following permit effective date or on permit effective date if on a Sunday | Sunday through Saturday | Submit with monthly SMR |
| Monthly | First day of calendar month following permit effective date or on permit effective date if that date is first day of the month | 1 st day of calendar month through last day of calendar month | By the 15 th day of the third month after the month of sampling |

| Sampling Frequency | Monitoring Period Begins On... | Monitoring Period | SMR Due Date |
|--------------------|---|---|--|
| Quarterly | Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date | January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31 | June 15 September 15 December 15 March 15 |
| Semiannually | Closest of January 1 or July 1 following (or on) permit effective date | January 1 through June 30 July 1 through December 31 | September 15 March 15 |
| Annually | January 1 following (or on) permit effective date | January 1 through December 31 | April 15 |

4. Reporting Protocols. The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR part 136.

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

- a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the RL, but greater than or equal to the laboratory’s MDL, shall be reported as “Detected, but Not Quantified,” or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

- c. Sample results less than the laboratory’s MDL shall be reported as “Not Detected,” or ND.
 - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. Compliance Determination. Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).
 6. Multiple Sample Data. When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
 - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
7. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
 - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; 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.

C. Discharge Monitoring Reports (DMRs)

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 at:
http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

D. Other Reports

1. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. The Permittee shall submit reports in compliance with SMR reporting requirements described in subsection X.B. above.
2. **Annual Summary Report**
By April 15 of each year, the Permittee shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water monitoring data, and a recycled water progress report describing any updates to the development of increased recycled water production and/or distribution. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Permittee shall submit annual report to the Regional Water Board in accordance with the requirements described in subsection X.B.7 above.
3. Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section

shall contain the following statement: "The analytical results for this sampling period did/did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential.
 - b. The Basin Plan or CTR criteria that was exceeded for each given pollutant.
 - c. The concentration of the pollutant(s).
 - d. The test method used to analyze the sample.
 - e. The date and time of sample collection.
4. The Permittee shall submit to the Regional 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.
5. The Regional Water Board requires the Permittee to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on his 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.

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

| | |
|--|--|
| WDID | 4B190106001 |
| Discharger/Permittee | City of Los Angeles |
| Name of Facility | Los Angeles-Glendale Water Reclamation Plant |
| Facility Address | 4600 Colorado Boulevard |
| | Los Angeles, CA 90039 |
| | Los Angeles County |
| Facility Contact, Title and Phone | Roshanak Aflaki, Plant Manager (818) 778-4120 |
| Authorized Person to Sign and Submit Reports | Roshanak Aflaki |
| Mailing Address | 1149 S. Broadway Street, 9 th Floor, Los Angeles, CA 90015-2213 |
| Billing Address | 1149 S. Broadway Street, 9 th Floor, Los Angeles, CA 90015-2213 |
| Type of Facility | POTW |
| Major or Minor Facility | Major |
| Threat to Water Quality | 1 |
| Complexity | A |
| Pretreatment Program | Yes |
| Recycling Requirements | Producer |
| Facility Permitted Flow | 20 million gallons per day |
| Facility Design Flow | 20 million gallons per day |
| Watershed | Los Angeles River |
| Receiving Water | Los Angeles River |
| Receiving Water Type | Inland surface water |

A. The City of Los Angeles (hereinafter Discharger or Permittee) and the City of Glendale entered into a joint venture in the 1960s to begin planning for the construction of Los Angeles Glendale WRP. While the City of Glendale originally owned the land, it was eventually deeded over to the City of Los Angeles to facilitate the construction and operation of Los Angeles Glendale WRP. City of Glendale is recognized as joint and equal owner of the plant and its effluent as stated in the Joint Powers Agreement between the two cities. Being an equal owner in the plant entitles the City of Glendale to independently apply for water rights to expand its reclaimed water system as well as submit engineering reports to State regulatory agencies.

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.

- B.** The Facility discharges wastewater to Los Angeles River, a water of the United States. The Discharger was previously regulated by Order No. R4-2011-0197 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0053953 adopted on December 8, 2011. This Order was subsequently revised by Order No. R4-2011-0197-A01 adopted on July 12, 2012. This Order expired on November 10, 2016. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.
- C.** The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on June 20, 2016. Supplemental information was requested on June 29, 2016 and received on July 13, 2016. The application was deemed complete on August 3, 2016. A site visit was conducted on January 9, 2017, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.
- D.** Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to 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.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

1. The Discharger and the City of Glendale jointly own the Los Angeles-Glendale WRP. However, the Discharger is granted sole authority to operate Los Angeles-Glendale WRP pursuant to the Joint Powers Agreement between the two cities. The Los Angeles-Glendale WRP, a tertiary wastewater treatment plant is located at 4600 Colorado Boulevard, Los Angeles, California. Attachment B shows the location of the plant. The Los Angeles-Glendale WRP currently receives wastewater from the cities of Glendale, Burbank, Los Angeles, La Cañada Flintridge, and from Los Angeles Zoo. The wastewater is a mixture of domestic and industrial wastewater that is pre-treated pursuant to 40 CFR Part 403. Los Angeles-Glendale WRP has a design capacity of 20 mgd and serves an estimated population of 434,000 people.

The Los Angeles-Glendale WRP is part of the City of Los Angeles’ integrated network of facilities, known as the North Outfall Sewer (NOS), which includes four treatment plants. The upstream treatment plants (Tillman WRP, Los Angeles-Glendale WRP, and Burbank WRP) discharge solids to the Hyperion Treatment Plant. This system also allows biosolids, solids, and excess flows to be diverted from the upstream plants to the Hyperion Wastewater Treatment Plant for treatment and disposal. All solids removed from the Los Angeles-Glendale WRP treatment process are returned untreated to the NOS for downstream treatment at the Hyperion Treatment Plant

2. Treatment at the Los Angeles-Glendale WRP consists of barscreen removal of large solids, primary sedimentation, activated sludge biological treatment with nitrification and denitrification, secondary sedimentation with coagulation, dual media and deep bed sand filtration, chlorination, and dechlorination. Treated wastewater discharged to the Los Angeles River is dechlorinated but the effluent delivered for reuse is not dechlorinated.

3. Sodium hypochlorite is used as a disinfectant in the Los Angeles-Glendale WRP. The disinfecting agent is added to the treated effluent prior to the filters to destroy bacteria, pathogens and viruses, and to minimize algal growth in the filters. Prior to discharge, sodium bisulfite is added to the treated effluent to remove residual chlorine.
4. No facilities are provided for solids processed at the plant. Sewage solids separated from the wastewater are returned to the trunk sewer for conveyance to NOS, where treatment and disposal occur, under Hyperion Wastewater Treatment Plant's NPDES permit. Attachment C is a schematic of the Los Angeles-Glendale WRP wastewater flow.
5. The City of Los Angeles has constructed a biological nutrient removal system with nitrogen de-nitrification process (NDN) in order to achieve compliance with the ammonia Basin Plan objectives. The system was completed and has been in operation since June 2007.

B. Discharge Points and Receiving Waters

1. The Los Angeles-Glendale WRP discharges tertiary-treated municipal wastewater to the Los Angeles River, a water of the United States, above the Estuary. Treated effluent is discharged from the plant to surface waters at Discharge Point 001.

Discharge Point 001: Discharge to Los Angeles River at a point located approximately 1,400 feet downstream of Colorado Boulevard (approximate coordinates: Latitude 34.13707°, Longitude -118.27524°).

During dry weather (May 1 – October 31), the primary sources of water flow in Los Angeles River, downstream of the discharge points, are the Los Angeles-Glendale WRP effluent and other NPDES-permitted discharges, including urban runoff conveyed through the municipal separate storm sewer systems (MS4). Storm water and dry weather urban runoff from MS4s are regulated under an NPDES permit, *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles* (LA Municipal Permit), NPDES Permit No. CAS004001.

The Los Angeles County Flood Control District channelized portions of the Los Angeles River to convey and control floodwater, and to prevent damage to homes located adjacent to the river. Although not its main purpose, the Los Angeles River conveys treated wastewater along with floodwater, and urban runoff. The Los Angeles River is unlined further downstream of its confluence with the Burbank Western Channel, in what is known as the Glendale Narrows. Groundwater recharge occurs incidentally, in these unlined areas of the Los Angeles River. At times when the groundwater table is high, groundwater rises and contributes flow to the Los Angeles River. Natural springs feed the river and support willows, sycamores, and cottonwood trees. South of the Glendale Narrows, the Los Angeles River is concrete-lined down to Willow Street, in Long Beach.

The Los Angeles River watershed is one of the largest in the Region. It is also one of the most diverse in terms of land use patterns. The Los Angeles River drains an 824 square mile area. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters which originate in the Santa Monica, Santa Susana, and San Gabriel Mountains. The rest of the watershed is highly developed. The river flows through the San Fernando Valley past heavily developed residential and commercial areas. From the Arroyo Seco, north of downtown Los Angeles, to the confluence with the Rio Hondo, the river flows through industrial and commercial areas and is bordered by railyards, freeways, and major commercial and government buildings. From the Rio Hondo to the Pacific Ocean, the river flows through industrial, residential, and commercial areas, including major refineries and petroleum

products storage facilities, major freeways, rail lines, and railyards serving the Ports of Los Angeles and Long Beach.

Major tributaries to the river in the San Fernando Valley are the Pacoima Wash and the Tujunga Wash (both drain portions of the Angeles National Forest in the San Gabriel Mountains), and the Burbank Western Channel and Verdugo Wash (both drain the Verdugo Mountains). Due to major flood events at the beginning of the century, by the 1950's most of the river was lined with concrete. In the San Fernando Valley, there is a section of the river with a soft bottom at the Sepulveda Flood Control Basin. The Basin is a 2,150-acre open space upstream of the Sepulveda Dam designed to collect flood waters during major storms. Because the area is periodically inundated, it remains in a semi-natural condition and supports a variety of low-intensity uses as well as supplying habitat. At the eastern end of the San Fernando Valley, the river bends around the Hollywood Hills and flows through Griffith and Elysian Parks, in an area known as the Glendale Narrows. Since the water table was too high to allow laying of concrete, the river in this area has a rocky, unlined bottom with concrete-lined or rip-rap sides. This stretch of the river is fed by natural springs and supports stands of willows, sycamores, and cottonwoods. The many trails and paths along the river in this area are heavily used by the public for hiking, horseback riding, and bird watching

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

Effluent limitations contained in the existing Order for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data from the term of the previous Order are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|------------------------|-------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| BOD ₅ 20°C | mg/L | 20 | 30 | 45 | 2.3 | -- | 10 |
| Suspended Solids | mg/L | 15 | 40 | 45 | 0.98 | -- | 5.5 |
| Oil and Grease | mg/L | 10 | -- | 15 | 1.51 | -- | 3 |
| Settleable Solids | ml/L | 0.1 | -- | 0.3 | < 0.1 | -- | < 0.1 |
| Residual Chlorine | mg/L | -- | -- | 0.1 | < 0.05 | -- | 0.05 |
| Total Dissolved Solids | mg/L | 950 | -- | -- | 682 | -- | 872 |
| MBAS | mg/L | 0.5 | -- | -- | 0.10 | -- | 0.17 |
| Chloride | mg/L | 190 | -- | -- | 143 | -- | 177 |
| Sulfate | mg/L | 300 | -- | -- | 143 | -- | 238 |
| Fluoride | mg/L | 2.0 | -- | -- | 0.59 | -- | 0.93 |
| Nitrate-N (as N) | mg/L | 7.2 | -- | -- | 6.9 | -- | 8.16 |
| Nitrite-N (as N) | mg/L | 0.9 | -- | -- | 0.36 | -- | <0.02 |
| Nitrate + Nitrite as N | mg/L | 7.2 | -- | -- | 5.1 | -- | 8.16 |
| Total Ammonia | mg/L | 2.2 | -- | 7.8 | 1.22 | -- | 3.1 |
| Antimony | µg/L | -- | -- | -- | 0.55 | -- | 0.96 |
| Arsenic | µg/L | -- | -- | -- | 1.68 | -- | 4.6 |
| Beryllium | µg/L | -- | -- | -- | 0.01 | -- | 0.02 |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|---------------------------|-------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| Cadmium | µg/L | 4.3 | -- | 8.9 | 0.31 | -- | 3.36 |
| Chromium III | µg/L | -- | -- | -- | 1.31 | -- | 2.02 |
| Chromium VI | µg/L | -- | -- | -- | 0.3 | -- | 1 |
| Copper | µg/L | 24 | -- | 34 | 9.3 | -- | 17.4 |
| Lead | µg/L | 10 | -- | 20 | 0.35 | -- | 1.5 |
| Mercury | µg/L | 0.051 | | 0.17 | 0.003 | -- | 0.019 |
| Nickel | µg/L | -- | -- | -- | 3.8 | -- | 12.2 |
| Selenium | µg/L | -- | -- | -- | 0.93 | -- | 1.95 |
| Silver | µg/L | -- | -- | -- | 0.06 | -- | 0.2 |
| Thallium | µg/L | -- | -- | -- | 0.16 | -- | 1.07 |
| Zinc | µg/L | 240 | -- | 298 | 40.7 | -- | 65.6 |
| Cyanide | µg/L | 4.3 | -- | 8.5 | 2.2 | -- | 5 |
| Asbestos | µg/L | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-TCDD (Dioxin) | pg/L | -- | -- | -- | <0.12 | -- | <0.23 |
| Acrolein | µg/L | -- | -- | -- | <0.55 | -- | < 0.81 |
| Acrylonitrile | µg/L | -- | -- | -- | <0.13 | -- | <0.25 |
| Benzene | µg/L | -- | -- | -- | < 0.1 | -- | < 0.11 |
| Bromoform | µg/L | -- | -- | -- | 0.19 | -- | 0.85 |
| Carbon Tetrachloride | µg/L | -- | -- | -- | < 0.1 | -- | < 0.155 |
| Chlorobenzene | µg/L | -- | -- | -- | <0.06 | -- | <0.075 |
| Dibromochloro-methane | µg/L | -- | -- | -- | 1.25 | -- | 3.94 |
| Chloroethane | µg/L | -- | -- | -- | <0.32 | -- | <0.395 |
| 2-chloroethyl vinyl ether | µg/L | -- | -- | -- | <0.21 | -- | <0.4 |
| Chloroform | µg/L | -- | -- | -- | 11.59 | -- | 15.4 |
| Dichlorobromo-methane | µg/L | -- | -- | -- | 0.4 | -- | 3.3 |
| 1,1-dichloroethane | µg/L | -- | -- | -- | <0.10 | -- | <0.14 |
| 1,2-dichloroethane | µg/L | -- | -- | -- | < 0.04 | -- | < 0.1 |
| 1,1-dichloroethylene | µg/L | -- | -- | -- | < 0.1 | -- | <0.14 |
| 1,2-dichloropropane | µg/L | -- | -- | -- | < 0.05 | -- | <0.16 |
| 1,3-dichloropropylene | µg/L | -- | -- | -- | < 0.07 | -- | <0.085 |
| Ethylbenzene | µg/L | -- | -- | -- | < 0.06 | -- | 0.08 |
| Methyl bromide | µg/L | -- | -- | -- | <0.5 | -- | 3.2 |
| Methyl chloride | µg/L | -- | -- | -- | < 0.08 | -- | <0.165 |
| Methylene chloride | µg/L | -- | -- | -- | 0.07 | -- | 0.29 |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|--|-------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| 1,1,2,2-tetrachloroethane | µg/L | -- | -- | -- | <0.03 | -- | <0.17 |
| Tetrachloroethylene | µg/L | -- | -- | -- | <0.06 | -- | <0.095 |
| Toluene | µg/L | -- | -- | -- | <0.07 | -- | <0.1 |
| Trans 1,2-Dichloroethylene | µg/L | -- | -- | -- | <0.1 | -- | <0.155 |
| 1,1,1-Trichloroethane | µg/L | -- | -- | -- | <0.09 | -- | <0.175 |
| 1,1,2-Trichloroethane | µg/L | -- | -- | -- | <0.05 | -- | <0.155 |
| Trichloroethylene | µg/L | -- | -- | -- | <0.08 | -- | <0.09 |
| Vinyl Chloride | µg/L | -- | -- | -- | < 0.12 | -- | < 0.165 |
| 2-chlorophenol | µg/L | -- | -- | -- | <0.15 | -- | < 0.525 |
| 2,4-dichlorophenol | µg/L | -- | -- | -- | <0.06 | -- | 0.14 |
| 2,4-dimethylphenol | µg/L | -- | -- | -- | <0.15 | -- | <0.47 |
| 4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol) | µg/L | -- | -- | -- | < 0.69 | -- | <0.835 |
| 2,4-dinitrophenol | µg/L | -- | -- | -- | <0.83 | -- | <1.41 |
| 2-nitrophenol | µg/L | -- | -- | -- | <0.3 | -- | <0.98 |
| 4-nitrophenol | µg/L | -- | -- | -- | < 0.47 | -- | <0.86 |
| 3-Methyl-4-Chlorophenol (aka P-chloro-m-cresol) | µg/L | -- | -- | -- | <0.16 | -- | <0.355 |
| Pentachlorophenol | µg/L | -- | -- | -- | <0.45 | -- | <0.745 |
| Phenol | µg/L | -- | -- | -- | < 0.17 | -- | <0.475 |
| 2,4,6-trichlorophenol | µg/L | -- | -- | -- | <0.39 | -- | <0.57 |
| Acenaphthene | µg/L | -- | -- | -- | < 0.06 | -- | <0.065 |
| Acenaphthylene | µg/L | -- | -- | -- | <0.06 | -- | <0.065 |
| Anthracene | µg/L | -- | -- | -- | <0.05 | -- | <0.055 |
| Benzidine | µg/L | -- | -- | -- | <0.7 | -- | <0.9 |
| Benzo(a)Anthracene | µg/L | -- | -- | -- | < 0.05 | -- | <0.07 |
| Benzo(a)Pyrene | µg/L | -- | -- | -- | < 0.05 | -- | < 0.065 |
| Benzo(b)Fluoranthene | µg/L | -- | -- | -- | < 0.05 | -- | < 0.07 |
| Benzo(ghi)Perylene | µg/L | -- | -- | -- | 0.02 | -- | 0.035 |
| Benzo(k)Fluoranthene | µg/L | -- | -- | -- | < 0.05 | -- | < 0.55 |
| Bis(2-Chloroethoxy) methane | µg/L | -- | -- | -- | < 0.1 | -- | < 0.235 |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|------------------------------|-------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| Bis(2-Chloroethyl)Ether | µg/L | -- | -- | -- | < 0.1 | -- | < 0.165 |
| Bis(2-Chloroisopropyl) Ether | µg/L | -- | -- | -- | < 0.13 | -- | < 0.265 |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 4 | -- | -- | 1.75 | -- | 16.5 |
| 4-Bromophenyl Phenyl Ether | µg/L | -- | -- | -- | < 0.1 | -- | < 0.265 |
| Butylbenzyl Phthalate | µg/L | -- | -- | -- | 0.19 | -- | 0.37 |
| 2-Chloronaphthalene | µg/L | -- | -- | -- | < 0.09 | -- | < 0.225 |
| 4-Chlorophenyl Phenyl Ether | µg/L | -- | -- | -- | < 0.1 | -- | < 0.25 |
| Chrysene | µg/L | -- | -- | -- | < 0.05 | -- | < 0.06 |
| Dibenzo(a,h) Anthracene | µg/L | 0.049 | -- | 0.098 | 0.02 | -- | 0.07 |
| 1,2-Dichlorobenzene | µg/L | -- | -- | -- | < 0.1 | -- | 0.195 |
| 1,3-Dichlorobenzene | µg/L | -- | -- | -- | < 0.1 | -- | < 0.175 |
| 1,4-Dichlorobenzene | µg/L | -- | -- | -- | <0.11 | -- | <0.175 |
| 3-3'-Dichlorobenzidine | µg/L | -- | -- | -- | < 1.32 | -- | < 2.3 |
| Diethyl Phthalate | µg/L | -- | -- | -- | <0.28 | -- | <0.31 |
| Dimethyl Phthalate | µg/L | -- | -- | -- | < 0.24 | -- | <0.32 |
| Di-n-Butyl Phthalate | µg/L | -- | -- | -- | 0.28 | -- | 0.83 |
| 2-4-Dinitrotoluene | µg/L | -- | -- | -- | < 0.11 | -- | < 0.295 |
| 2-6-Dinitrotoluene | µg/L | -- | -- | -- | < 0.11 | -- | < 0.29 |
| Di-n-Octyl Phthalate | µg/L | -- | -- | -- | < 0.29 | -- | < 0.41 |
| 1,2-Diphenylhydrazine | µg/L | -- | -- | -- | < 1 | -- | < 1 |
| Fluoranthene | µg/L | -- | -- | -- | < 0.01 | -- | < 0.025 |
| Fluorene | µg/L | -- | -- | -- | < 0.01 | -- | < 0.04 |
| Hexachlorobenzene | µg/L | -- | -- | -- | < 0.1 | -- | < 0.27 |
| Hexachlorobutadiene | µg/L | -- | -- | -- | < 0.17 | -- | < 0.285 |
| Hexachlorocyclopentadiene | µg/L | -- | -- | -- | < 1.68 | -- | < 1.915 |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|---------------------------|-------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| Hexachloroethane | µg/L | -- | -- | -- | < 0.13 | -- | < 0.13 |
| Indeno(1,2,3-cd)Pyrene | µg/L | -- | -- | -- | 0.02 | -- | 0.02 |
| Isophorone | µg/L | -- | -- | -- | <0.1 | -- | <0.235 |
| Naphthalene | µg/L | -- | -- | -- | < 0.06 | -- | < 0.065 |
| Nitrobenzene | µg/L | -- | -- | -- | < 0.11 | -- | < 0.32 |
| N-Nitrosodi-methylamine | µg/L | -- | -- | -- | < 0.2 | -- | < 0.285 |
| N-Nitrosodi-n-Propylamine | µg/L | -- | -- | -- | < 0.10 | -- | < 0.265 |
| N-Nitrosodi-phenylamine | µg/L | -- | -- | -- | < 0.13 | -- | < 0.22 |
| Phenanthrene | µg/L | -- | -- | -- | < 0.01 | -- | < 0.025 |
| Pyrene | µg/L | -- | -- | -- | < 0.02 | -- | < 0.025 |
| 1,2,4-Trichlorobenzene | µg/L | -- | -- | -- | < 0.06 | -- | < 0.21 |
| Aldrin | µg/L | -- | -- | -- | < 0.001 | -- | < 0.002 |
| Alpha-BHC | µg/L | -- | -- | -- | 0.001 | -- | 0.002 |
| Beta-BHC | µg/L | -- | -- | -- | < 0.001 | -- | < 0.0015 |
| Gamma-BHC (aka Lindane) | µg/L | -- | -- | -- | <0.002 | -- | <0.0025 |
| delta-BHC | µg/L | -- | -- | -- | < 0.001 | -- | < 0.002 |
| Chlordane | µg/L | -- | -- | -- | < 0.02 | -- | < 0.028 |
| 4,4'-DDT | µg/L | -- | -- | -- | <0.002 | -- | <0.0025 |
| 4,4'-DDE | µg/L | -- | -- | -- | < 0.001 | -- | < 0.002 |
| 4,4'-DDD | µg/L | -- | -- | -- | < 0.001 | -- | < 0.002 |
| Diazinon | µg/L | -- | -- | -- | < 0.05 | -- | 0.53 |
| Dieldrin | µg/L | -- | -- | -- | 0.002 | -- | 0.0025 |
| Alpha-Endosulfan | µg/L | -- | -- | -- | < 0.002 | -- | < 0.0025 |
| Beta-Endosulfan | µg/L | -- | -- | -- | < 0.002 | -- | < 0.0025 |
| Endosulfan Sulfate | µg/L | -- | -- | -- | < 0.002 | -- | < 0.004 |
| Endrin | µg/L | -- | -- | -- | < 0.002 | -- | < 0.0035 |
| Endrin Aldehyde | µg/L | -- | -- | -- | < 0.001 | -- | < 0.002 |
| Heptachlor | µg/L | -- | -- | -- | < 0.002 | -- | < 0.004 |
| Heptachlor Epoxide | µg/L | -- | -- | -- | < 0.002 | -- | < 0.003 |
| PCB 1016 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.033 |
| PCB 1221 | µg/L | -- | -- | -- | < 0.05 | -- | < 0.062 |
| PCB 1232 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.033 |
| PCB 1242 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.0375 |
| PCB 1248 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.031 |
| PCB 1254 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.031 |
| PCB 1260 | µg/L | -- | -- | -- | < 0.02 | -- | < 0.0385 |

| Parameter | Units | Effluent Limitation | | | Monitoring Data (From Feb 2012 – To Dec 2015) | | |
|------------------------|--------|---------------------|----------------|---------------|--|----------------------------------|-------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly Discharge | Highest Average Weekly Discharge | Highest Daily Discharge |
| Toxaphene | µg/L | | -- | -- | < 0.03 | -- | < 0.0425 |
| Mirex | µg/L | -- | -- | -- | < 0.002 | -- | < 0.002 |
| Demeton-o | µg/L | -- | -- | -- | < 0.004 | -- | < 0.004 |
| Demeton-s | µg/L | -- | -- | -- | < 0.004 | -- | < 0.004 |
| Guthion | µg/L | -- | -- | -- | < 0.03 | -- | < 0.26 |
| Malathion | µg/L | -- | -- | -- | < 0.13 | -- | < 0.26 |
| Ethyl Parathion | µg/L | -- | -- | -- | < 0.06 | -- | < 0.26 |
| 1,4-Dioxane | µg/L | -- | -- | -- | 1.71 | -- | 2.09 |
| MTBE | µg/L | -- | -- | -- | < 0.05 | -- | < 0.08 |
| Perchlorate | µg/L | -- | -- | -- | <0.34 | -- | 0.65 |
| 1,2,3-Trichloropropane | µg/L | -- | -- | -- | <0.08 | -- | <0.095 |
| Methoxychlor | µg/L | -- | -- | -- | < 0.01 | -- | < 0.01 |
| 2,4-D | µg/L | -- | -- | -- | < 0.1 | -- | < 0.105 |
| 2,4,5-TP (Sylvex) | µg/L | -- | -- | -- | < 0.06 | -- | < 0.1 |
| Alpha Radioactivity | pCi/mL | -- | -- | -- | 0.004 | -- | 0.00743 |
| Beta Radioactivity | pCi/mL | -- | -- | -- | 0.01 | -- | 0.0118 |
| Radium-228 | pCi/mL | -- | -- | -- | 0.00002 | -- | 0.000064 |
| Strontium-90 | pCi/mL | -- | -- | -- | 0.00044 | -- | 0.000683 |
| Tritium | pCi/mL | -- | -- | -- | 0.08 | -- | 0.312 |
| Uranium | pCi/mL | -- | -- | -- | 0.001 | -- | 0.00148 |

D. Compliance Summary

On April 24, 2014, the Regional Water Board issued the City of Los Angeles Bureau of Sanitation Settlement Offer No. R4-2014-0044 for \$9,000 for violations of effluent limitations contained in Regional Water Board Order No. R4-2011-0197 for bis(2-ethylhexyl)phthalate incurred on November 30, 2012 and January 31, 2014. On May 27, 2014, the Regional Water Board received the signed Acceptance of Conditional Resolution and Waiver to Right of Hearing. The City of Los Angeles accepted the Regional Water Board’s offer to participate in the Expedited Payment Program and waived their right to a hearing.

On August 14, 2014, the Regional Water Board issued the City of Los Angeles Bureau of Sanitation Settlement Offer No. R4-2014-0146 for \$3,000 for violation of effluent limitations contained in Regional Water Board Order No. R4-2011-0197 for bis(2-ethylhexyl)phthalate incurred on March 31, 2014. On September 4, 2014, the Regional Water Board received the signed Acceptance of Conditional Resolution and Waiver to Right of Hearing. The City of Los Angeles accepted the Regional Water Board’s offer to participate in the Expedited Payment Program and waived their right to a hearing.

The following table presents the list of violations incurred during the period from 2011 to 2015.

Table F-3. Summary of Effluent Limitation Violations

| Description | Status | Violation Date |
|--|-----------|----------------|
| Bis(2-Ethylhexyl)Phthalate Monthly Average limit is 4 µg/L and reported value was 5.05 µg/L at EFF-001A. | Violation | 03/31/2014 |
| Bis(2-Ethylhexyl)Phthalate Monthly Average limit is 4 µg/L and reported value was 8.04 µg/L at EFF-001A. | Violation | 01/31/2014 |
| Bis(2-Ethylhexyl)Phthalate Monthly Average mass loading limit is 0.67 lb/day and reported value was 0.78 lb/day at EFF-001A. | Violation | 01/31/2014 |
| Bis(2-Ethylhexyl)Phthalate Monthly Average limit is 4 µg/L and reported value was 16.5 µg/L. | Violation | 11/30/2012 |
| Bis(2-Ethylhexyl)Phthalate Monthly Average mass loading limit is 0.67 lb/day and reported value was 1.615 lb/day. | Violation | 11/30/2012 |

Three exceedances of the 1.0TUc monthly median trigger for accelerated monitoring were observed as indicated in the Table below.

Table F-4. Summary of Chronic Toxicity Data

| Test Date | Test Species | Endpoint | NOEC | TUc | Monthly Median TUc | EC/IC25 | %Effect in 100% Sample |
|-----------|----------------------------|--------------|--------|-------|--------------------|---------|------------------------|
| 12/04/12 | <i>Ceriodaphnia dubia</i> | Survival | 100% | 1.0 | >16 | 14.10% | 44.4% |
| | | Reproduction | <6.25% | >16.0 | | 0.95% | 87.8% |
| 02/18/13 | <i>Ceriodaphnia dubia</i> | Survival | 100% | 1.0 | 4 | >100% | -11.1% |
| | | Reproduction | 25% | 4.0 | | >100% | 23.5% |
| 10/29/15 | <i>Pimephales promelas</i> | Survival | 100% | 1.0 | 2.0 | >100% | 2.5% |
| | | Reproduction | 50% | 2.0 | | >100% | 16.8% |

E. Planned Changes

The following table presents LAGWRP’s planned changes.

Table F-5. Scheduled Improvement and Schedules of Implementation

| Project Name | Project Summary | Start Date | End Date |
|---|--|------------|------------|
| LAG - Primary Effluent Equalization Storage | Project will construct two (2) 2.5 million gallon equalization tanks at Los Angeles Glendale water reclamation plant to store effluent for establishing uniform flow levels. | 1/01/2016 | 3/31/2020 |
| LAG - Ammonium Hydroxide Piping | This project relocates chemical lines above ground at LAG. | 11/01/2013 | 7/12/2017 |
| LAG - Bisulfite Facility Improvements | The scope of this project is to replace the two (2) Bisulfite tanks and all associated piping at LAG with heat traced and insulated tanks. Power needs to be provided to the tanks to insure the heat tracing is maintained continually. | 8/1/2014 | 11/1/2018 |
| LAG - Blower Air Cleanup System | Install new Biotrickling Filter system including fans and ducting. | 3/1/2015 | 3/31/2019 |
| LAG - Channel 4 Diversion Gate | Install new diversion gate to divert plant flow to an in-plant sewer during emergencies. | 11/1/2014 | 2/28/2019 |
| LAG - Personnel Building | This project will design and construct an estimated 7,000 sq. ft. building for LAG personnel. | 1/2/2015 | 10/29/2019 |
| LAG - Cover Plates & Grating Replacement | Due to safety concerns, replace all plant cover plates and gratings, repair corroded concrete and provide T-Lock liner. | 2/2/2015 | 7/1/2019 |
| LAG - Dechlorination Chamber Improvements | Replace existing wooden baffles with prefabricated modular stainless steel baffles. | 9/1/2014 | 3/1/2019 |
| LAG - Headworks Improvements | This project will remove and replace 2 bar screens and install a third bar screen adjacent to the existing 2 bar screens. | 9/15/2014 | 12/31/2018 |

| Project Name | Project Summary | Start Date | End Date |
|--|--|------------|-----------|
| LAG – High Pressure Effluent (HPE) & Air Piping Improvements | This project will demolish and replace approximately 9000 feet of existing process piping at Los Angeles-Glendale Water Reclamation Plant, including HPE water lines, process air lines, and instrument air lines. | 11/1/2012 | 7/1/2017 |
| LAG - Primary Tanks & Sec. Clarifiers Guard Rails | Install removable guard rail support system on all primary tanks and secondary clarifier tanks. Provide removable guard rails for three tanks. | 11/3/2014 | 9/30/2017 |
| LAG - Sodium Hypochlorite Facility Relocation | Relocation of Sodium Hypochlorite Facility | 9/1/2015 | 7/30/2018 |
| LAG - Tertiary Filter Replacement | After upgrade of the existing sand filters at DCT, this project will relocate several of the existing Aqua Aerobics filters located at DCT to LAG | 11/23/2008 | 7/29/2016 |

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

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

B. 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.

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

1. **Water Quality Control Plans.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 4, 1994 that designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. On May 26, 2000, the USEPA approved the revised Basin Plan except for the implementation plan for potential MUN-designated water bodies. On August 22, 2000, the City of Los Angeles, City of Burbank, City of Simi Valley, and the County Sanitation Districts of Los Angeles County

challenged USEPA’s water quality standards action in the U.S. District Court. On December 18, 2011, the court issued an order remanding the matter to USEPA to take further action on the 1994 Basin Plan consistent with the court’s decision. On February 15, 2002, USEPA revised its decision and approved the 1994 Basin Plan in whole. In its February 15, 2002 letter, USEPA stated:

“EPA bases its approval on the court’s finding that the Regional Board’s identification of waters with an asterisk (“*”) in conjunction with the implementation language at page 2-4 of the 1994 Basin Plan, was intended “to only conditionally designate and not finally designate as MUN those water bodies identified by an (“*”) for the MUN use in Table 2-1 of the Basin Plan, without further action.” Court Order at p. 4. Thus, the waters identified with an (“*”) in Table 2-1 do not have MUN as a designated use until such time as the State undertakes additional study and modifies its Basin Plan. Because this conditional use designation has no legal effect, it does not constitute a new water quality standard subject to EPA review under section 303(c)(3) of the Clean Water Act (“CWA”). 33 U.S.C. § 1313(c)(3).”

USEPA’s decision has no effect on the MUN designations of groundwater. Beneficial uses applicable to Los Angeles River are as follows:

Table F-6. Basin Plan Beneficial Uses – Receiving Waters

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|-----------------|--|--|
| 001 | Los Angeles River Reach 3 (Figueroa St. to Riverside Dr.) (Hydro. Unit No. 405.21) Watershed Boundary Dataset (WBD) No. 180701050210 | <p><u>Existing:</u> Ground water recharge (GWR); water contact recreation (REC-1); non-contact water recreation (REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); and wetland habitat (WET).</p> <p><u>Potential:</u> Municipal and domestic water supply (MUN¹) and industrial service supply (IND).</p> |
| 001 | Los Angeles River Reach 2 (Rio Hondo Reach 1 to Figueroa St.) (Hydro. Unit No. 405.15) WBD No. 180701050401 Los Angeles River Reach 2 (Carson St. to Rio Hondo Reach 1) (Hydro. Unit No. 405.15) WBD No. 180701050402 | <p><u>Existing:</u> Ground water recharge (GWR); water contact recreation (REC-1²); non-contact water recreation (REC-2); and warm freshwater habitat (WARM).</p> <p><u>Potential:</u> Municipal and domestic water supply (MUN¹); industrial service supply (IND); and wildlife habitat (WILD).</p> |

¹ The potential municipal and domestic supply (p*MUN) beneficial use for the water body is consistent with the State Water Resources Control Board Resolution 88-63 and Regional Water Board Resolution No. 89-003; however, the Regional Water Board has only conditionally designated the MUN beneficial use of the surface water and at this time cannot establish effluent limitation designed to protect the conditional designation.

² Access prohibited by Los Angeles County DPW.

| Discharge Point | Receiving Water Name | Beneficial Use(s) |
|-----------------|--|--|
| 001 | Los Angeles River Reach 1 (Estuary to Carson St.) (Hydro. Unit No. 405.12) WBD No. 180701050402 | <p><u>Existing:</u> Ground water recharge (GWR); water contact recreation (REC-1²); non-contact water recreation (REC-2); warm freshwater habitat (WARM); marine habitat (MAR); wildlife habitat (WILD); and rare, threatened, or endangered species (RARE).</p> <p><u>Potential:</u> Municipal and domestic water supply (MUN¹); industrial service supply (IND); industrial process supply (PROC); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); and shellfish harvesting (SHELL²).</p> |
| 001 | Los Angeles River Estuary (Ends at Willow St.) (Hydro. Unit No. 405.12) WBD No. 180701050402 | <p><u>Existing:</u> Industrial service supply (IND); navigation (NAV); water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); estuarine habitat (EST); marine habitat (MAR); wildlife habitat (WILD); rare, threatened, or endangered species (RARE³); migration of aquatic organisms (MIGR⁴); and spawning, reproduction, and/or early development (SPWN⁴); and wetland habitat (WET).</p> <p><u>Potential:</u> Shellfish harvesting (SHELL).</p> |

³ One or more rare species utilize all ocean, bays, estuaries, and coastal wetlands for foraging and/or nesting.

⁴ Aquatic organisms utilize all bays, estuaries, lagoons and coastal wetlands, to a certain extent, for spawning and early development. This may include migration into areas which are heavily influenced by freshwater inputs.

Beneficial uses of the receiving ground waters are as follows:

Table F-7. Basin Plan Beneficial Uses – Ground Waters

| Discharge Point | Basin Name | Beneficial Use(s) |
|-----------------|---|---|
| 001 | San Fernando Valley Basin DWR Basin No. 4-12 | <u>Existing:</u> Municipal and domestic water supply (MUN); industrial service supply (IND); industrial process supply (PROC); and agricultural supply (AGR) |
| 001 | Coastal Plain of Los Angeles Central Basin DWR Basin No. 4-11.04 | <u>Existing:</u> Municipal and domestic water supply (MUN); industrial service supply (IND); industrial process supply (PROC); and agricultural supply (AGR) |
| 001 | Coastal Plain of Los Angeles West Coast Basin (Remainder of Basin) DWR Basin No. 4-11.03 | <u>Existing:</u> Municipal and domestic water supply (MUN), industrial service supply (IND), industrial process supply (PROC), and agricultural supply (AGR) |

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants.
3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR section 131.21, 65 Federal Register 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
5. **Stringency of Requirements for Individual Pollutants.** This Order contains both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, pH, and percent removal of BOD and TSS.

Restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, and pH are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are carried over from the previous permit.

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

6. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16.
7. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.
8. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
9. **Water Rights.** When applicable, state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Permittee must file a petition with the State Water Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional

authority to enforce such requirements under CWC section 1211. This is not an NPDES requirement.

10. **Domestic Water Quality.** In compliance with CWC section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels developed to protect human health and ensure that water is safe for domestic use.
11. **Water Recycling** - In accordance with statewide policies concerning water reclamation⁵, this Regional Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of storm water and dry-weather urban runoff. The Permittee shall submit a feasibility report evaluating the feasibility of additional recycling efforts to reduce the amount of treated effluent discharged as authorized by this Order and a recycled water progress report describing any updates to the development of increased recycled water production and/or distribution. This report will also need to consider the necessity of a water rights 1211 application which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water body. These reports shall be included in the annual reports submittal, as described in the MRP.
12. **Monitoring and Reporting.** 40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional 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.
13. **Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR part 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. USEPA has not delegated the authority to regulate biosolids/sludge under 40 CFR part 503 to the state of California. Therefore, references to the federal requirements and implementation language for biosolids/sludge, which may have been included in the previous NPDES Order, are not included in this renewal Order. Major publicly owned treatment works should contact USEPA (Ms. Lauren Fondahl, or her successor) regarding the submittal of biosolids/sludge reports and any electronic submittal requirements.

D. Impaired Water Bodies on CWA Section 303(d) List

The State Water Board proposed the California 2012 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing CWA section 303(d) List of Impaired Waters and section 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested persons. The Regional Water Boards' Integrated Reports were used to revise their 2010 303(d) List. On April 8, 2012, the State Water Board adopted the California 2012 Integrated Report. On June 26, 2015, the USEPA approved California's 2012 Integrated Report Section 303(d) List of Impaired Waters requiring Total Maximum Daily Loads (TMDLs) for the Los Angeles Region. The CWA section 303(d) list can be found at the following link:

http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml

⁵ See, e.g., CWC sections 13000 and 13550-13557, State Water Board Resolution No. 77-1 (Policy with Respect to Water Reclamation in California), and State Water Board Resolution No. 2009-0011 (Recycled Water Policy).

The Los Angeles River and its tributaries are on California 2012 Integrated Report. The following pollutants were identified as impacting the receiving waters:

Los Angeles River Estuary (Queensway Bay) – Calwater Watershed 40512000 (Hydro. Unit No. 405.12 in Basin Plan) / USGS HUC 180701050402

Pollutants: Chlordane (sediment)⁶, DDT (sediment)⁶, PCBs (sediment)⁶, sediment toxicity⁶, and trash⁷

Los Angeles River Reach 1 (Estuary to Carson Street) – Calwater Watershed 40512000 (Hydro. Unit No. 405.12 in Basin Plan) / USGS HUC 180701050402

Pollutants: Ammonia⁷, cadmium⁷, coliform bacteria⁷, copper (dissolved)⁷, cyanide⁶, diazinon⁶, lead⁷, nutrients (algae)⁷, trash⁷, zinc (dissolved)⁷, and pH⁷

Los Angeles River Reach 2 (Carson Street to Figueroa Street) – Calwater Watershed 40515010 (Hydro. Unit No. 405.15 in Basin Plan) / USGS HUC 180701050402

Pollutants: Ammonia⁷, coliform bacteria⁷, copper⁷, lead⁷, nutrients (algae)⁷, oil⁶, and trash⁷

Los Angeles River Reach 3 (Figueroa Street to Riverside Drive) – Calwater Watershed 40521000 (Hydro. Unit No. 405.21 in Basin Plan) / USGS HUC 180701050210

Pollutants: Ammonia⁷, copper⁷, lead⁷, nutrients (algae)⁷, and trash⁷

E. Other Plans, Polices and Regulations

1. **Sources of Drinking Water Policy.** On May 19, 1988, the State Water Board adopted Resolution No. 88-63, *Sources of Drinking Water (SODW) Policy*, which established a policy that all surface and ground waters, with limited exemptions, are suitable or potentially suitable for municipal and domestic supply. To be consistent with the State Water Board's SODW Policy, on March 27, 1989, the Regional Water Board adopted Resolution No. 89-03, *Incorporation of Sources of Drinking Water Policy into the Water Quality Control Plans (Basin Plans) – Santa Clara River Basin (4A)/ Los Angeles River Basin (4B)*.

Consistent with Regional Water Board Resolution No. 89-03 and State Water Board Resolution No. 88-63, in 1994 the Regional Water Board conditionally designated all inland surface waters in Table 2-1 of the 1994 Basin Plan as existing, intermittent, or potential for Municipal and Domestic Supply (MUN). However, the conditional designation in the 1994 Basin Plan included the following implementation provision: "no new effluent limitations will be placed in Waste Discharge Requirements as a result of these [potential MUN designations made pursuant to the SODW policy and the Regional Water Board's enabling resolution] until the Regional Water Board adopts [a special Basin Plan Amendment that incorporates a detailed review of the waters in the Region that should be exempted from the potential MUN designations arising from SODW policy and the Regional Water Board's enabling resolution]." On February 15, 2002, the USEPA clarified its partial approval (May 26, 2000) of the 1994 Basin Plan amendments and acknowledged that the conditional designations do not currently have a legal effect, do not reflect new water quality standards subject to USEPA review, and do not support new effluent limitations based on the conditional designations stemming from the SODW Policy until a subsequent review by the Regional Water Board finalizes the designations for these waters. This permit is designed to be consistent with the existing Basin Plan.

⁶ A TMDL must be prepared for this pollutant.

⁷ A TMDL has been adopted by USEPA to address this pollutant.

2. **Title 22 of the California Code of Regulations (CCR Title 22).** The California Department of Public Health (CDPH) established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge beneficial use when that receiving groundwater is designated as MUN. Also, the Basin Plan specifies that “Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.”
3. **Secondary Treatment Regulations.** 40 CFR part 133 of establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.
4. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR part 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, *General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities*. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ to regulate storm water discharges associated with industrial activity. General NPDES Permit No. CAS000001 was revised on April 1, 2014, and became effective on July 1, 2015.

Storm water runoff from the Los Angeles-Glendale WRP is regulated under General NPDES permit No. CAS000001. On April 8, 1992, the Permittee filed a Notice of Intent to comply with the requirements of the general permit. The Permittee developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP), to comply with the State Water Board’s General NPDES permit No. CAS000001.

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

The requirements contained in this Order sections VI.C.3.b (Spill Cleanup Contingency Plan section), VI.C.4 (Construction, Operation and Maintenance Specifications section), and VI.C.6 (Spill Reporting Requirements section) are intended to be consistent with the

requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes as satisfying the requirements in sections VI.C.3.b, VI.C.4, and VI.C.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supercede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

6. **Watershed Management** - This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region following the USEPA guidance in *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective of the WMA is to provide a more comprehensive and integrated strategy resulting in water resource protection, enhancement, and restoration while balancing economic and environmental impacts within a hydrologically-defined drainage basin or watershed. The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. The WMA integrates activities across the Regional Water Board's diverse programs, particularly permitting, planning, and other surface water-oriented programs that have tended to operate somewhat independently of each other.

The accompanying Order fosters the implementation of this approach by protecting beneficial uses in the watershed and requiring the Discharger to participate with other stakeholders, in the development and implementation of a watershed-wide monitoring program. The Monitoring and Reporting Program (Attachment E) requires the Discharger to undertake the responsibilities delineated under an approved watershed-wide monitoring plan in the implementation of the Watershed-wide Monitoring Program. On August 8, 2008, the Los Angeles River Regional Monitoring Program was approved by this Regional Water Board to implement the goal of the watershed-wide monitoring program.

The Regional Water Board has prepared and periodically updates its Watershed Management Initiative Chapter, the latest is updated December 2007. This document contains a summary of the region's approach to watershed management. It addresses each watershed and the associated water quality problems and issues. It describes the background and history of each watershed, current and future activities, and addresses TMDL development. The information can be accessed on our website: http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml.

7. **Relevant TMDLs** – Section 303(d) of the CWA requires states to identify water bodies that do not meet water quality standards and then to establish TMDLs for each 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. **Los Angeles River and Tributaries Metals TMDL** - On June 2, 2005, with Resolution No. R05-006, the Regional Water Board established a *Total Maximum Daily Load for Metals for the Los Angeles River and its Tributaries (LA River Metals*

TMDL). On October 20, 2005, the State Water Board approved the *LA River Metals TMDL* in Resolution No. 2005-0077. On December 9, 2005 and December 22, 2005, respectively, Office of Administrative Law (OAL) and USEPA approved the *LA River Metals TMDL*, and it became effective on January 11, 2006. The Los Angeles River Metals TMDL contains waste load allocations for copper, lead, cadmium, and zinc.

On September 6, 2007, the Regional Water Board re-adopted the TMDL by Resolution No. R07-014 in compliance with a writ of mandate issued by the Los Angeles County Superior Court in the matter of *Cities of Bellflower et al. v. State Water Resources Control Board et al.* (Los Angeles Superior Court No. BS101732). The writ directed the Regional Water Board to consider alternatives to the project before re-adopting the TMDL. The writ was limited to this issue, and the TMDL was affirmed in all other aspects. The re-adopted TMDL replaced the previous implementation deadlines that were tied to “the effective date of the TMDL” with specific dates. The re-adopted TMDL was subsequently approved by the State Water Board in Resolution No. 2008-0046 on June 17, 2008 and by OAL on October 14, 2008. USEPA approved the re-adopted Los Angeles River Metals TMDL on October 29, 2008, which is the effective date of the TMDL. On May 7, 2009, in compliance with the writ, the Regional Water Board voided and set aside Resolution No. R05-006.

On May 6, 2010, the Regional Water Board adopted Resolution No. R10-003, an amendment to the Basin Plan to revise the *LA River Metals TMDL*. The amendment revises the TMDL to adjust the numeric targets for copper in Reaches 1-4 of the Los Angeles River and the Burbank Western Channel and the corresponding WLAs for the Donald C. Tillman, Los Angeles-Glendale and Burbank WRPs based on a water effect ratio (WER). The copper allocations for other sources remain based on the default WER value of 1.0 and the remaining portion of the loading capacity for Reaches 1-4 of the river and the Burbank Western Channel, which is increased by adjusting the numeric targets with the WER, will remain unallocated. The revision includes language stating that regardless of the WER, the WRPs must perform at a level that can be attained by existing treatment technologies at the time of permit issuance, reissuance or modification. On April 19, 2011, the State Water Board adopted Resolution No. 2011-0021, approving the revised *LA River Metals TMDL*. On July 28, 2011, the *LA River Metals TMDL* was approved by OAL. On November 3, 2011, The *LA River Metals TMDL* was approved by USEPA and became effective on the same date.

On April 9, 2015, the Regional Water Board adopted Resolution No. R15-004, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Revise the Los Angeles River and Tributaries Metals TMDL*. On November 17, 2015, the State Water Board adopted Resolution No. 2015-0069, *Approving an Amendment to the Water Quality Control Plan for the Los Angeles Region (Basin Plan) to Adopt Site-Specific Objectives for Lead and Copper in the Los Angeles River Watershed and to Revise the Total Maximum Daily Load (TMDL) for Metals in the Los Angeles River and Tributaries*. On July 11, 2016, the OAL approved Resolution No. R15-004. On December 12, 2016, the USEPA approved this resolution with the understanding “... that the Regional Board is applying both the anti-backsliding and anti-degradation provisions. The anti-backsliding provision ensures that effluent concentrations do not increase above levels that can be maintained by wastewater facilities at the time of permit reissuance. The antidegradation provision requires permittees to track trends in water quality, and where increases are predicted or

observed, evaluate the cause and identify control measures to arrest increases. Therefore, the amendments will have no effect on the discharge effluent limits for facilities that are currently discharging copper or lead at concentrations that are below the existing CTR values.” On December 12, 2016, the USEPA approved Resolution No. R15-004 and became effective on the same date. However, the implementation of lead WLA will not take effect until the federal USEPA has de-promulgated the existing lead CTR water quality criteria.

- b. **Los Angeles River Nitrogen Compounds and Related Effects TMDL** - On July 10, 2003, the Regional Water Board adopted Resolution No. 2003-009, *Amendment to the Basin Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River (Nitrogen Compounds TMDL)*. On November 19, 2003, the State Water Board approved *the Nitrogen Compounds TMDL*. However, on December 4, 2003, the Regional Water Board revised the Nitrogen Compound TMDL by adopting Resolution No. 2003-016, *Revision of Interim Effluent Limits for Ammonia in the Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River*. Resolution No. 2003-016 only revised the portion of the *Nitrogen Compounds TMDL* containing interim limits for total ammonia as nitrogen, for the Glendale and Tillman WRPs. All other portions of the TMDL remained unchanged. The *Nitrogen Compounds TMDL* went into effect on March 23, 2004, when the Regional Water Board filed the Notice of Decision with the California Resources Agency.

On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan-Los Angeles Region-To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds*. This amendment to the Basin Plan incorporates 30-day average site-specific objectives (SSO) for ammonia along with corresponding site-specific early life stage (ELS) implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. In accordance with Implementation Table, Task 8 of the *LA River Nitrogen Compounds TMDL*, “...If a site specific objective is adopted by the Regional Board, and approved by relevant approving agencies, this TMDL will need to be revised, readopted, and reapproved to reflect the revised water quality objectives.”

On December 6, 2012, the Regional Water Board adopted Resolution No. R12-010, *Amendment to the Water Quality Control Plan for Plan for the Los Angeles Region to amend the Total Maximum Daily Load (TMDL) for Nitrogen Compounds and Related Effects in the Los Angeles River* by incorporating site-specific ammonia objectives. This amendment incorporated the approved site-specific 30-day average objectives for ammonia per Resolution No. 2007-005 with the condition that implementation actions to achieve applicable site-specific objectives in these waterbodies must also result in compliance with downstream water quality objectives for ammonia and other nitrogen compounds. In addition, Attachment A to Resolution No. R12-010 contains a language stating that regardless of the SSO and SSO-derived WLAs, for discharges regulated under this TMDL with concentrations below site-specific water quality objectives, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility’s applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and anti-degradation requirements are met. On

June 4, 2013, the State Water Board approved the resolution. On June 9, 2014, and August 7, 2014, respectively, OAL and USEPA approved Resolution R12-010, and it became effective on August 7, 2014.

- c. **Los Angeles River Bacteria TMDL** – On July 8, 2010 the Regional Water Board adopted Resolution No. R10-007, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Incorporate a Total Maximum Daily Load for Indicator Bacteria in the Los Angeles River Watershed* (LA River Bacteria TMDL). The LA River Bacteria TMDL contains WLAs for Tillman, Los Angeles-Glendale, and Burbank WRPs, which are set equal to a 7-day median of 2.2 MPN/100 mL of *E. coli* and/or a daily max of 235 MPN/100mL to ensure zero days of allowable exceedances. No exceedances of the monthly geometric mean TMDL numeric target of 126/100 mL *E. coli* are permitted. *The LA River Bacteria TMDL* became effective on March 23, 2012.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source Permittees 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: 40 CFR part 122.44(a) requires that permits include applicable TBELs and standards; and 40 CFR part 122.44(d) requires that permits include WQBELs to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

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

A. Discharge Prohibitions

Effluent and receiving water limitations in this Board Order are based on the CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. This order authorizes the discharge of tertiary-treated wastewater from Discharge Point 001. It does not authorize any other types of discharges.

B. Technology-Based Effluent Limitations (TBELs)

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.

2. Applicable TBELs

This Facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD₅20°C, TSS, and pH. However, all TBELs from the previous Order No. R4-2011-0197 as amended by R4-2011-0197-A01, are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding. Further, mass-based effluent limitations are based on a design flow rate of 20 mgd. The removal efficiency for BOD and TSS is set at the minimum level attainable by secondary treatment technology. The following Table summarizes the TBELs applicable to the Facility:

Table F-8. Summary of TBELs

| Parameter | Units | Effluent Limitations | | | | |
|------------------------------------|----------------------|----------------------|----------------|---------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| BOD ₅ 20°C | mg/L | 20 | 30 | 45 | | |
| | lbs/day ⁸ | 3,340 | 5,000 | 7,510 | | |
| TSS | mg/L | 15 | 40 | 45 | | |
| | lbs/day ⁸ | 2,500 | 6,680 | 7,500 | | |
| pH | standard units | -- | -- | -- | 6.5 | 8.5 |
| Removal Efficiency for BOD and TSS | % | 85 | -- | -- | | |

This Facility is also subject to TBELs contained in similar NPDES permits, for similar facilities, based on the treatment level achievable by tertiary-treated wastewater treatment systems. These effluent limitations are consistent with the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 (City of Woodland).

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The Regional Water Board has considered the factors listed in CWC section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed starting from section IV.C.2.

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water

⁸ The mass emission rates are based on the plant design flow rate of 20 mgd, and are calculated as follows: Flow (mgd) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

- a. The Basin Plan establishes the beneficial uses for surface water bodies in the Los Angeles region. The beneficial uses of the Los Angeles River affected by the discharge have been described previously in this Fact Sheet.
- b. The Basin Plan also specifies narrative and numeric WQOs applicable to surface water as shown in the following discussions.

i. BOD₅20°C and TSS

BOD₅20°C is a measure of the quantity of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, fish kills.

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

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

Los Angeles-Glendale WRP permit provides tertiary treatment requirements, such as, the BOD₅20°C and TSS limits that are more stringent than secondary treatment requirements, based on Best Professional Judgment (BPJ). The Plant achieves solids removal that are better than secondary-treated wastewater by adding a polymer (Alum) to enhance the precipitation of solids, and by filtering the effluent.

The monthly average, the 7-day average, and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Those limits were all included in the previous permit (Order R4-2011-0197 as amended by R4-2011-0197-A01) and the Los Angeles-Glendale WRP has been able to meet all three limits (monthly average, the 7-day average, and the daily maximum) for both BOD₅20°C and TSS.

In addition to including mass-based and concentration-based effluent limitations for BOD₅20°C and suspended solids, the Order also contains percent removal requirements for these two constituents. In accordance with 40 CFR parts 133.102(a)(3) and 133.102(b)(3), the 30-day average percent

removal shall not be less than 85 percent. Percent removal is defined as a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent pollutant concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

ii. **pH**

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of “pure” water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. In accordance with 40 CFR part 133.102(c), the effluent values for pH shall be maintained within the limits of 6.0 to 9.0 unless the POTW demonstrates that (1) inorganic chemicals are not added to the waste stream as part of the treatment process; and (2) contributions from industrial sources do not cause the pH of the effluent to be less than 6.0 or greater than 9.0. The effluent limitation for pH in this permit requiring that the wastes discharged shall at all times be within the range of 6.5 to 8.5 is taken from the Basin Plan which reads “the pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharge.”

iii. **Settleable solids**

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

It is impracticable to use a 7-day average limitation because short-term spikes of settleable solid levels that would be permissible under a 7-day average scheme would not be adequately protective of all beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit and the Los Angeles-Glendale WRP has been able to meet both limits.

iv. **Oil and grease**

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

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation because spikes that occur under a 7-day average scheme could

cause a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the antibacksliding exceptions apply. Both limits were included in the previous permit and the Los Angeles-Glendale WRP has been able to meet both limits.

v. **Residual Chlorine**

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

It is impracticable to use a 7-day average or a 30-day average limitation, because it is not as protective of beneficial uses as a daily maximum limitation. Chlorine is very toxic to aquatic life and short term exposure of chlorine may cause fish kills.

vi. **Total Dissolved Solids, Chloride, Sulfate, and Boron**

The limits for total dissolved solids, sulfate, and boron are based on Basin Plan Water Quality Objectives for the Los Angeles River watershed, above Figueroa Street. The TDS is 950 mg/L and the sulfate limit is 300 mg/L. There is no boron water quality objective for that reach of the Los Angeles River. The chloride limit is 190 mg/L, consistent with Regional Water Board Resolution No. 97-02, Amendment to the Water Quality Control Plan to incorporate a Policy for Addressing Levels of Chloride in Discharges of Wastewaters. Resolution 97-02 was adopted by Regional Water Board on January 27, 1997; approved by the State Water Board in Resolution 97-94; and, approved by OAL on January 8, 1998; and served to revise the chloride water quality objective in the Los Angeles River and other surface waters. It is practicable to express these limits as monthly averages, since they are not expected to cause acute effects on beneficial uses.

Waste Discharge Requirements (WDRs) Order No. R4-2007-0006 as amended by Order No. R4-2008-0040 was adopted by the Regional Water Board for the Los Angeles-Glendale WRP's discharge with the objective of managing the potential percolation of constituents to the underlying groundwater contained in the surface water.

Limits based upon the Basin Plan water quality objectives have been included in this Order because, based upon Best Professional Judgment, these constituents are always present in potable water which is the supply source of the wastewater entering the Treatment Plant. They may be present in concentrations which meet California drinking water standards but exceed the Basin Plan water quality objectives. Therefore, limitations are warranted to protect the beneficial uses of the receiving water.

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

The existing permit effluent limitation of 0.5 mg/l for MBAS was developed based on the Basin Plan water quality objective, which incorporates Drinking Water Standards in Title 22, California Code of Regulations, to protect the surface water MUN beneficial use. Given the nature of the facility which

accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has the reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for the prohibition of floating material such as foams and scums. Therefore an effluent limitation is required.

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

viii. **Nitrogen Compounds/Nutrient Compounds**

Nitrate Nitrogen ($\text{NO}_3 -\text{N}$), Nitrite Nitrogen ($\text{NO}_2 -\text{N}$), Total Inorganic Nitrogen ($\text{NO}_2 + \text{NO}_3$ as N) – Total inorganic nitrogen is the sum of Nitrate-nitrogen and Nitrite-nitrogen. High nitrate levels in drinking water can cause health problems in humans. Infants are particularly sensitive and can develop methemoglobinemia (blue-baby syndrome). Nitrogen is also considered a nutrient. Excessive amounts of nutrients can lead to other water quality impairments.

- (a) **Algae** - Excessive growth of algae and/or other aquatic plants can degrade water quality. Algal blooms sometimes occur naturally, but they are often the result of excess nutrients (i.e., nitrogen, phosphorus) from waste discharges or nonpoint sources. These algal blooms can lead to problems with tastes, odors, color, and increased turbidity and can depress the dissolved oxygen content of the water, leading to fish kills. Floating algal scum and algal mats are also an aesthetically unpleasant nuisance.

The limitations for biostimulatory substances are based on the Basin Plan water quality objective, “Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses,” and other relevant information and are intended to be protective of the beneficial uses, pursuant to 40 CFR part 122.44(d). Total inorganic nitrogen will be the indicator parameter intended to control algae, pursuant to 40 CFR part 122.44(d)(1)(vi)(C).

Nutrients are included in the 303(d) List in the *California 2008-2010 Integrated Report for the Los Angeles River*. Since nutrients have WLAs in the Los Angeles River Nutrient TMDL, TMDL-based effluent limitations for nutrients are required in order to implement the provisions of the TMDL and are intended to restore the water quality in that section of the receiving water.

- (b) **Concentration-based limit.** The proposed effluent limitations of 7.2 mg/L, 0.9 mg/L, and 7.2 mg/L for nitrate nitrogen, nitrite nitrogen, and total inorganic nitrogen, respectively, are based on the Nutrient TMDL WLA. However, if the Los Angeles River is de-listed for nutrients, and the TMDL is revised accordingly, then the permit may be re-opened to include effluent limitations based on water quality objectives in the Basin Plan.

Watershed-wide monitoring will track concentration levels of phosphorus and all nitrogen series pollutants present in the effluent and receiving waters, pursuant to 40 CFR part 122.44(d)(1)(vi)(C)(3).

- (c) **Mass-based limit.** There are no mass emission rates for nitrogen compounds because the Nutrient TMDL did not specify mass-based WLAs.

ix. **Total Ammonia**

Ammonia is a pollutant routinely found in the wastewater effluent of POTWs, in landfill-leachate, and in run-off from agricultural fields where commercial fertilizers and animal manure are applied. Ammonia exists in two forms – un-ionized ammonia (NH_3) and the ammonium ion (NH_4^+). They are both toxic, but the neutral, un-ionized ammonia species (NH_3) is much more toxic, because it is able to diffuse across the epithelial membranes of aquatic organisms much more readily than the charged ammonium ion. The form of ammonia is primarily a function of pH, but it is also affected by temperature and other factors. Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxygen content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. Groundwater recharge is a beneficial use in these reaches. Ammonia also combines with chlorine (often both are present in POTW treated effluent discharges) to form chloramines – persistent toxic compounds that extend the effects of ammonia and chlorine downstream.

Los Angeles River Ammonia

On July 10, 2003, the Regional Water Board adopted Resolution No. 2003-009, Amendment to the Basin Plan for the Los Angeles Region to Include a *TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River* (Nitrogen Compounds TMDL). On November 19, 2003, the State Water Board approved the *Nitrogen Compounds TMDL*. On December 4, 2003, the Regional Water Board revised the *Nitrogen Compound TMDL* by adopting Resolution No. 2003-016, *Revision of Interim Effluent Limits for Ammonia in the Amendment to the Water Quality Control Plan for the Los Angeles Region to Include a TMDL for Nitrogen Compounds and Related Effects in the Los Angeles River*. Resolution No. 2003-016 only revised the portion of the *Nitrogen Compounds TMDL* containing interim limits for total ammonia as nitrogen, for the Los Angeles-Glendale and Tillman WRPs. All other portions of the TMDL remained unchanged. The *Nitrogen Compounds TMDL* went into effect on March 23, 2004, when the Regional Water Board filed the Notice of Decision with the California Resources Agency.

On June 7, 2007, the Regional Water Board adopted Resolution No. 2007-005, *Amendments to the Water Quality Control Plan Los Angeles Region To Incorporate Site-Specific Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds*. This amendment to the Basin Plan incorporates site-specific 30-day average objectives for ammonia along with corresponding site-specific early life stage implementation provisions for select waterbody reaches and tributaries in the Santa Clara, Los Angeles, and San Gabriel River watersheds. In accordance with Implementation Table, Task 8 of the *LA River Nitrogen Compounds TMDL*, "...If a site specific objective is adopted by the Regional Board, and approved

by relevant approving agencies, this TMDL will need to be revised, readopted, and reapproved to reflect the revised water quality objectives.”

On December 6, 2012, the Regional Water Board adopted Resolution No. R12-010, *Amendment to the Water Quality Control Plan for the Los Angeles Region to amend the Total Maximum Daily Load (TMDL) for Nitrogen Compounds and Related Effects in the Los Angeles River by Incorporating Site-specific Ammonia Objectives*. This amendment incorporated the approved site-specific 30-day average objectives for ammonia per Resolution No. 2007-005. On June 4, 2013, the State Water Board approved the Resolution. On June 9, 2014, and August 7, 2014, respectively, OAL and USEPA approved Resolution R12-010, and it became effective on August 7, 2014.

Resolution No. R12-010 states:

“Regardless of the SSO and SSO-derived WLAs, for discharges regulated under this TMDL with concentrations below site-specific water quality objectives, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility’s applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and anti-degradation requirements are met. When developing effluent limitations in these circumstances, consideration shall include, but is not limited to, existing and projected facility flows for the permit term and the corresponding effect on the facility’s capability to reduce ammonia concentrations and, where chlorine disinfection is used, the addition of ammonia during the treatment process to control the formation of trihalomethanes (THMs), if relied upon by the facility. It is not the intent for these performance based limits to have the effect of de-rating Water Reclamation Plants that are operating below their permitted design capacities. Regional Water Board staff may consider recommendations from a Regional Water Board-led workgroup that will be charged with evaluating alternative methodologies for calculating effluent limitations for discharges with concentrations below site-specific water quality objectives. Permit compliance with anti-degradation and anti-backsliding requirements shall be documented in permit fact sheets.”

To address this issue, a Regional Water Board staff-led workgroup had a series of meetings in 2013 and 2014 to evaluate alternative methodologies for calculating effluent limitations for discharges with concentrations below site-specific water quality objectives. This workgroup consisted of representatives of permittees, USEPA, the Regional Water Board and non-governmental organizations. The progress of the meetings stalled, however, when the group could not reach consensus on how a performance based Water Quality Based Effluent Limitation (WQBEL) should be calculated. The permittees in the workgroup, including the City of Los Angeles, the County Sanitation Districts of Los Angeles and the City of Burbank, prepared a memorandum dated November 12, 2014, identifying plant performance issues that would impact treatment performance. In a subsequent memorandum dated January 13, 2015, the permittees in the workgroup proposed effluent limitations similar to the translation of objectives given below in (a). The calculations and justification for the WQBELs are included in (b). A discussion of antidegradation and anti-backsliding requirements for the two effluent limitation scenarios are included in Section IV.D.

The procedures for calculating the ammonia nitrogen effluent limitations, and the WQBELs are discussed below.

(a) Translation of Ammonia Nitrogen Objectives into Effluent Limitations
Applicable to Discharge Point 001

This procedure to translate the WLAs into permit effluent limitations is specified in Chapter 3 of the Basin Plan, which was amended by Resolution R02-011 and R04-022.

Step 1 – Identify applicable water quality objective.

From the Discharger's effluent, the following data are separated by time of year when ELS are present (from April 1 to September 30) and when ELS are absent (from October 1 to March 31) and are summarized below:

ELS Present:

pH = 7.4 at 50th percentile and temperature = 27°C

pH = 7.5 at 90th percentile and temperature = 27°C

From Resolution No. R12-010, *Nitrogen Compounds TMDL*;

One-hour Average Objective

The Facility discharges into a receiving waterbody that has no "MIGR" beneficial use designation. According to the Basin Plan, it is assumed that salmonids may be present in waters designated in the Basin Plan as "COLD" or "MIGR." In a letter dated June 19, 2003, the USEPA approved the 2002 Ammonia Basin Plan Amendment and clearly stated that the acute criteria are dependent on pH and whether or not sensitive coldwater fish are present. The Los Angeles River has no MIGR or COLD beneficial use designations at the point of discharge for this facility. There are no coldwater fish present in the receiving water. Therefore, the applicable ammonia water quality objective is the one that corresponds to "Waters not Designated COLD or MIGR." The one-hour average objective is dependent on pH and whether salmonid fish species are present, but is independent of temperature.

For waters not designated COLD or MIGR, the one-hour average concentration of total ammonia as nitrogen (in mg N/L) shall not exceed the values in Table 3-1 of the Basin Plan or as described in the equation below:

$$= \left(\frac{0.411}{1 + 10^{7.204 - pH}} \right) + \left(\frac{58.4}{1 + 10^{pH - 7.204}} \right)$$

Using the 90th percentile pH = 7.5 in the formula above, the resulting One-hour Average Objective is equal to **21.33 mg/L**

30-day Average Objective

The 30-day average SSO ELS present is calculated using the formula stated in the Resolution No. R12-010 for Los Angeles River Reach 3 (Riverside Dr. to Figueroa St.):

ELS Present (from April 1-September 30)

$$CCC = \left(\frac{0.0676}{1 + 10^{7.688 - pH}} + \frac{2.912}{1 + 10^{pH - 7.688}} \right) * 0.854 * \text{MIN}(2.85, 2.85 * 10^{0.028 * (25 - T)})$$

Where T = temperature expressed in °C.

Substituting the values of pH and temperature in the above formula, the 30-day Average SSO ELS Present = **4.19 mg/L**

From Basin Plan amendment Resolution No. 2002-011;

4-day Average Objective = 2.5 times the 30-Day Average Objective

4-day Average Objective = 2.5 x 4.25 = **10.5 mg/L**

ELS Absent:

pH = 7.4 at 50th percentile and temperature = 23.0°C

pH = 7.4 at 90th percentile and temperature = 23.0°C

One-hour Average Objective (calculated above) = **22.8 mg/L**

From Resolution No. R12-010, *Nitrogen Compounds TMDL*;

30-day Average Objective

The 30-day average SSO ELS absent will be calculated using the formula stated in the Resolution No. R12-010 for Los Angeles River Reach 3 (Riverside Drive to Figueroa Street):

ELS Absent (from October 1-March 31)

$$CCC = \left(\frac{0.0676}{1 + 10^{7.688 - pH}} + \frac{2.912}{1 + 10^{pH - 7.688}} \right) * 0.854 * 2.85 * 10^{0.028 * (25 - \text{Max}(T,7))}$$

Substituting the values of pH and temperature in the above formula, the 30-day Average SSO ELS absent = **5.48 mg/L**

From Basin Plan amendment Resolution No. 2002-011;

4-day Average Objective = 2.5 times the 30-Day Average Objective

4-day Average Objective = 2.5 x 5.27 = **13.7 mg/L**

Step 2 – For each water quality objective, calculate the effluent concentration allowance (ECA) using the steady-state mass balance model. Since mixing has not been authorized by the Regional Water Board, this equation applies:

$$ECA = WQO$$

Step 3 – Determine the Long-Term Average discharge condition (LTA) by multiplying each ECA with a factor (multiplier) that adjust for variability. By using Table 3-6 of the Basin Plan, calculated CV (i.e., standard deviation/mean for ammonia), the following are the ECA.

ELS Present

ECA multiplier from Table 3-6, when CV = 0.23

$$\text{One-hour Average} = 0.605$$

$$\text{Four-day Average} = 0.771$$

$$\text{30-day Average} = 0.908$$

ELS Absent

ECA multiplier from Table 3-6, when CV = 0.23

$$\text{One-hour Average} = 0.605$$

$$\text{Four-day Average} = 0.771$$

$$\text{30-day Average} = 0.908$$

Using the LTA equations:

ELS Present:

$$\begin{aligned} \text{LTA}_{1\text{-hour}/99} &= \text{ECA}_{1\text{-hour}} \times \text{ECA multiplier}_{1\text{-hour}/99} \\ &= 21.33 \times 0.605 = 12.905 \text{ mg/L} \end{aligned}$$

$$\begin{aligned} \text{LTA}_{4\text{-day}/99} \text{ ELS Present} &= \text{ECA}_{4\text{-day}} \times \text{ECA multiplier}_{4\text{-day}/99} \\ &= 10.48 \times 0.771 = 8.079 \text{ mg/L} \end{aligned}$$

$$\begin{aligned} \text{LTA}_{30\text{-day}/99} \text{ ELS Present} &= \text{ECA}_{30\text{-day}} \times \text{ECA multiplier}_{30\text{-day}/99} \\ &= 4.19 \times 0.908 = 3.805 \text{ mg/L} \end{aligned}$$

ELS Absent:

$$\begin{aligned} \text{LTA}_{1\text{-hour}/99} &= \text{ECA}_{1\text{-hour}} \times \text{ECA multiplier}_{1\text{-hour}/99} \\ &= 22.79 \times 0.605 = 13.789 \text{ mg/L} \end{aligned}$$

$$\begin{aligned} \text{LTA}_{4\text{-day}/99} \text{ ELS Absent} &= \text{ECA}_{4\text{-day}} \times \text{ECA multiplier}_{4\text{-day}/99} \\ &= 13.71 \times 0.771 = 10.572 \text{ mg/L} \end{aligned}$$

$$\begin{aligned} \text{LTA}_{30\text{-day}/99} \text{ ELS Absent} &= \text{ECA}_{30\text{-day}} \times \text{ECA multiplier}_{30\text{-day}/99} \\ &= 5.48 \times 0.908 = 4.979 \text{ mg/L} \end{aligned}$$

Step 4 – Select the (most limiting) of the LTAs derived in Step 3 (LTA_{\min})

$$\text{ELS Present } \text{LTA}_{\min} = 3.805 \text{ mg/L}$$

$$\text{ELS Absent } \text{LTA}_{\min} = 4.979 \text{ mg/L}$$

Step 5 – Calculate water quality based effluent limitation MDEL and AMEL by multiplying LTA_{\min} as selected in Step 4, with a factor (multiplier) found in Table 3-7.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the $\text{LTA}_{1\text{-hour}/99}$, therefore n = 30.

ELS Present:

$$\text{CV} = 0.23$$

$$\text{MDEL multiplier} = 1.653$$

$$\text{AMEL multiplier} = 1.071$$

$$\text{MDEL} = \text{LTA}_{\min} \times \text{MDEL multiplier}_{99} = 3.805 \times 1.653 = 6.3 \text{ mg/L}$$

$$\begin{aligned} \text{MDEL with 10\% margin of safety} &= 6.3 \times 0.9 = 5.7 \text{ mg/L} \\ \text{AMEL} &= \text{LTA}_{\text{min}} \times \text{AMEL multiplier}_{95} = 3.805 \times 1.071 = 4.1 \text{ mg/L} \\ \text{AMEL with 10\% margin of safety} &= 4.1 \times 0.9 = 3.7 \text{ mg/L} \end{aligned}$$

ELS Absent:

$$\begin{aligned} \text{CV} &= 0.23 \\ \text{MDEL multiplier} &= 1.652 \\ \text{AMEL multiplier} &= 1.071 \\ \text{MDEL} &= \text{LTA}_{\text{min}} \times \text{MDEL multiplier}_{99} = 4.979 \times 1.653 = 8.2 \text{ mg/L} \\ \text{MDEL with 10\% margin of safety} &= 8.2 \times 0.9 = 7.4 \text{ mg/L} \\ \text{AMEL} &= \text{LTA}_{\text{min}} \times \text{AMEL multiplier}_{95} = 4.979 \times 1.071 = 5.3 \text{ mg/L} \\ \text{AMEL with 10\% margin of safety} &= 5.3 \times 0.9 = 4.8 \text{ mg/L} \end{aligned}$$

The explicit 10% margin of safety is allocated for ammonia in the TMDL to address uncertainty in the sources and linkage analysis. As shown above, the calculated AMEL and MDEL shall be multiplied by 90% to arrive at MDEL of 5.7 mg/L and an AMEL of 3.7 mg/L for ELS Present and an MDEL of 7.4 mg/L and an AMEL of 4.8 mg/L for ELS Absent.

- (b) Calculation of Ammonia Nitrogen WQBELs with margin of safety factor (MOSF) reflective of performance.

As indicated above, the *Los Angeles River Nitrogen TMDL* states that if the discharges regulated under the TMDL have concentrations below site-specific water quality objectives, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility's applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and antidegradation requirements are met. Since the facility is operating with ammonia discharge concentrations below the ammonia as nitrogen thirty-day site specific water quality objective, this Order includes performance-based final WQBELs based on evaluating several options and incorporating one of the options that was discussed during the Regional Water Board staff-led stakeholder workgroup meetings. This calculation entails conducting a statistical analysis of the recent data considering the narrow range of values that comprise the ammonia dataset, and calculating a MOSF that would be added to the maximum effluent concentration (MEC). The approach described below is not intended to be precedent-setting. Instead, it is intended to address two key components of the *Los Angeles River Compounds and Related Effects TMDL*:

- (1) Regardless of the SSO and SSO-derived WLAs, for discharges regulated under this TMDL with concentrations below site-specific water quality objectives, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility's applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and anti-degradation requirements are met.

- (2) It is not the intent for these performance based limits to have the effect of de-rating Water Reclamation Plants that are operating below their permitted design capacities.

To comply with the TMDL requirement to consider existing and projected facility flows for the permit term and the corresponding effect on the facility's capability to reduce ammonia concentrations and, the addition of ammonia during the chlorine disinfection treatment process to control the formation of trihalomethanes (THMs), staff evaluated the facility's performance data associated with the removal of ammonia nitrogen. During the last five years of treatment plant operation, there are only two occasions when the effluent data exceeded the ammonia AMEL of 2.2 mg/L contained in the Order R4-2011-0197. The first was detected on November 8, 2015 and the second was detected on February 1, 2016 with concentration of 2.4 mg/L and 3.1 mg/L, respectively. The MEC is equal to 3.1 mg/L. Please note that these two exceedances did not result in any effluent limit violation of an AMEL or MDEL. The Discharger collected another effluent sample that resulted in a lower calculated monthly average value. Therefore, the facility's effluent is in compliance with the AMEL of 2.2 mg/L and MDEL of 7.8 mg/L. In addition, since 2012, the treatment plant has produced an average ammonia effluent concentration of approximately 1.3 mg/L. During this 5-year period, the facility has experienced controlled and uncontrolled operational variability, such as diurnal variation of influent concentration and varying influent wastewater characteristics, which impact ammonia removal performance. However, in spite of the variability encountered during the operation of the treatment plant, the facility has reliably maintained compliance with the current ammonia effluent limitations. There are no ammonia effluent violations during this permit cycle.

Based on Regional Water Board staff evaluation of the facility's performance, and based on best professional judgment as documented above, and consistent with the direction provided in the TMDL language, the ammonia nitrogen AMEL WQBEL that is reflective of plant performance shall be set equal to MEC + (an MOSF of 20% x MEC). From the facility's data, the MEC for LAGWRP is equal to 3.1 mg/L. The ELS Present and ELS Absent MOSF = 20% of 3.1 = 0.62. The ammonia nitrogen MDEL WQBEL is not adjusted with a MOSF because the translated ammonia effluent limitation is almost double the AMEL value, which has never been exceeded since the NDN system became operational in 2007. Using the formula discussed above, the ammonia nitrogen calculated WQBELs is equal to 3.7 mg/L for both ELS present and ELS absent.

Figure F-1 below presents the facility's ammonia performance data from February 2012 to March 2016. However, in order to be consistent with the findings and assumptions of the TMDL, only the most recent three years of data was used in the calculation of ammonia nitrogen effluent limitations. Figure F-1 indicates that when the AMEL WQBEL is set at 3.7 mg/L, the facility can consistently comply with the ammonia nitrogen effluent limitations without derating the plant's capacity. Maintaining compliance with ammonia nitrogen limit shall ensure that the quality of the receiving water with respect to ammonia nitrogen shall not be degraded. Because

the Los Angeles River flow during dry-weather is effluent-dominated, the quality of the discharged effluent will directly influence the level of the receiving water quality. The summary of the AMEL ammonia WQBELs versus the translated effluent limitations based on the SSO-derived WLA is presented in Table F-9.

Figure F-1. Ammonia Performance Data

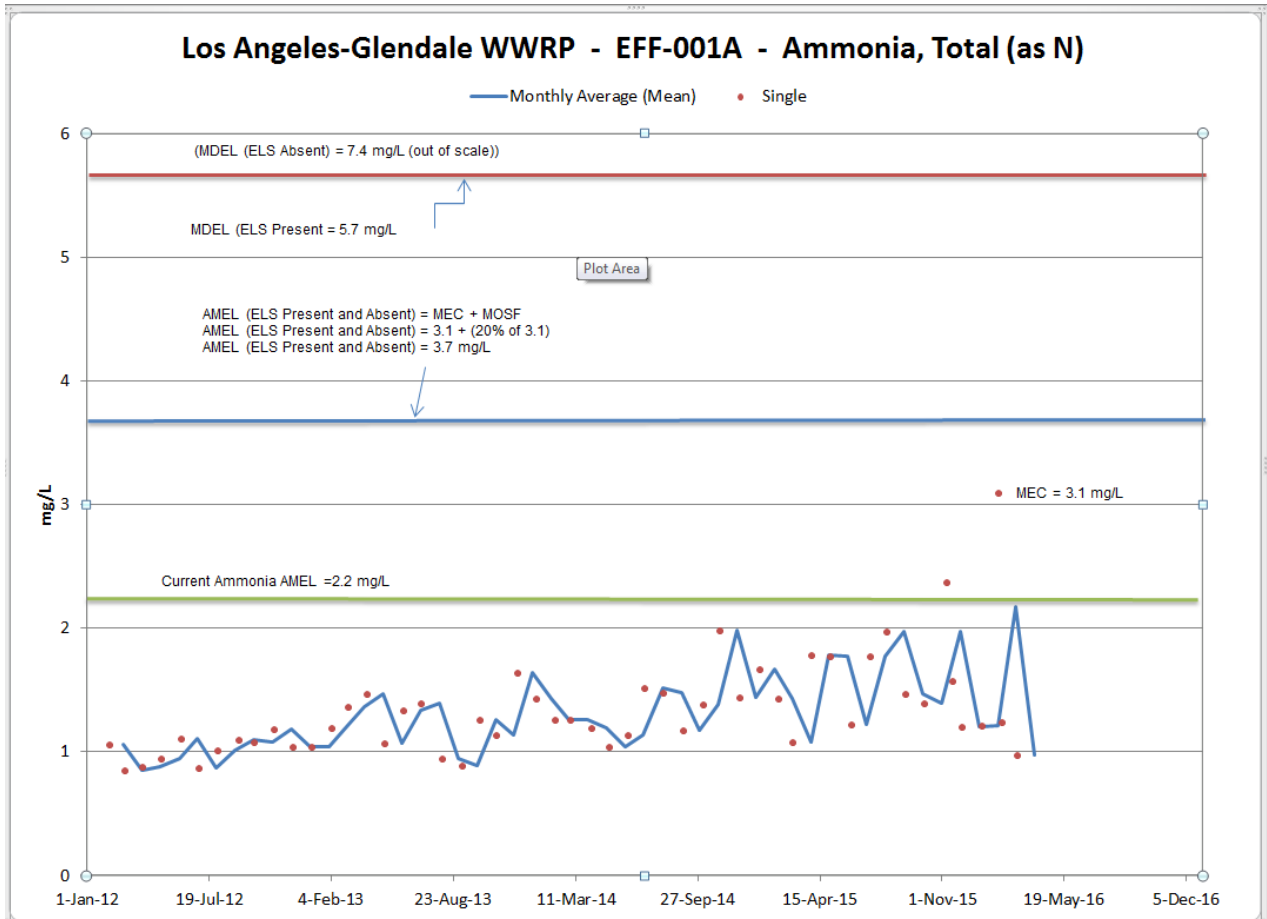


Table F-9. Summary of Ammonia Effluent Limitations for Discharge Point 001

| Parameter | Units | Translated using SSO and WLA | | WQBELs with MOSF | Final for this Order | |
|--------------------------------|----------------------|------------------------------|---------------|------------------|----------------------|---------------|
| | | Average Monthly | Maximum Daily | Average Monthly | Average Monthly | Maximum Daily |
| Ammonia Nitrogen (ELS Present) | mg/L | 3.7 | 5.7 | 3.7 | 3.7 | 5.7 |
| | lbs/day ⁸ | 617 | 951 | 617 | 617 | 951 |
| Ammonia Nitrogen (ELS Absent) | mg/L | 4.8 | 7.4 | 3.7 | 3.7 | 7.4 |
| | lbs/day ⁸ | 801 | 1,234 | 617 | 617 | 1,234 |

(c) Ammonia Receiving Water Confirmatory Monitoring

The Los Angeles River Nitrogen Compounds and Related Effects TMDL, Resolution No. R12-010 requires the Permittee to evaluate the effects of the ammonia SSO in the receiving water. The Permittee shall submit a

workplan addressing the effects of ammonia SSO in the receiving water, specifying the particular test method that would be used, and shall submit the workplan no later than 90 days after the effective date of this Order to the Executive Officer for approval. The workplan shall include the following requirements per Resolution No. R12-010.

- (1) The Permittee must conduct confirmatory receiving water monitoring to verify that water quality conditions are similar to those of the 2003 ammonia WER study period. Confirmatory monitoring will include concurrent chemistry and toxicity receiving water monitoring. The confirmatory toxicity monitoring will be supplemental to three species toxicity testing required in the NPDES permits and must utilize *Hyallela azteca* as the test organism. Temperature, pH, and ammonia receiving water data will be collected at the time and location of collection of the toxicity samples.

The 2003 ammonia WER study site was located at station LA2, downstream of LAGWRP at Los Feliz (aka RSW-LAGT654). Please see Table 2 and Table 11 of the Final Staff Report of Resolution No. 2007-005.

- (2) Monitoring of chemistry and toxicity testing should include a minimum of three sample events per year for three years. Monitoring sites should be representative of those investigated in the Los Angeles River during the SSO study, and one location in the reach immediately downstream of where the SSO is applied. Two of the three sample events should be conducted during dry weather. Following the first three-year monitoring cycle, if there is no increase in toxicity attributable to ammonia, monitoring may be reduced to once per year at each site, as appropriate. The number and type of events during the year should be as described above.
- (3) Chemistry monitoring to include all nitrogen species, including total ammonia, pH, hardness, temperature, sodium, potassium, calcium, BOD, sulfate, total dissolved solids, and chloride.
- (4) If confirmatory monitoring indicates toxicity due to ammonia or a change in the waterbody that could impact the calculation or application of the SSOs, including either its chemical characteristics or the aquatic species present, including early life stages of fish, the Permittee shall develop and submit a plan for reevaluating the SSOs to the Executive Officer.
- (5) In the event that ammonia concentrations are consistently at levels below effluent limitations that would be set without use of the SSO, monitoring to confirm the SSOs is not necessary. The ammonia WLA of 2.2 mg/L for LAGWRP, as stated in Resolution No. 2003-009, will be used as the base effluent limitation.

x. **Coliform**

Total and fecal coliform bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. Given the nature of the facility, a wastewater treatment plant, pathogens are likely to be present in the effluent in cases where the disinfection process is not operating adequately. Thus, the permit contains the following:

(a) Effluent Limitations:

- (1) The 7 day median number of coliform organisms at some point in the treatment process must not exceed a Most Probable Number (MPN) or Colony Forming Unit (CFU) of 2.2 per 100 milliliters,
- (2) The number of coliform organisms must not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period, and
- (3) No sample shall exceed an MPN or CFU of 240 total coliform bacteria per 100 milliliters.

These disinfection-based effluent limitations for coliform are for human health protection and are consistent with requirements established by the California Department of Public Health. These limitations for coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

(b) Effluent Limitations (Bacteria TMDL Resolution No. R10-007)

- (1) The *LA River Bacteria TMDL* contains WLAs for Tillman, Los Angeles-Glendale, and Burbank WRPs. WLAs are expressed as allowable exceedance days. The WLAs for LAGWRP are set equal to a 7-day median of 2.2 MPN/100 mL of *E. coli* or a daily max of 235 MPN/100mL to ensure zero (0) days of allowable exceedances. No exceedances of the geometric mean TMDL numeric target of 126/100 mL *E.coli* are permitted.

(c) Receiving Water Limitation

- (1) Geometric Mean Limits
E.coli density shall not exceed 126/100 mL.
- (2) Single Sample Limits
E.coli density shall not exceed 235/100 mL.

These receiving water limitations are based on Resolution No. R10-005, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Bacteria Objectives for Freshwaters Designated for Water Contact Recreation by Removing the Fecal Coliform Objective*, adopted by the Regional Water Board on July 8, 2010, and effective on December 5, 2011.

xi. **Temperature**

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

- (a) The Federal Water Pollution Control Administration in 1967 called temperature “a catalyst, a depressant, an activator, a restrictor, a stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water.” The suitability of water for total body immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20°C to 30°C (68 °F to 86 °F).

- (b) Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.
- (c) Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.

The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin Plan and a white paper developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*, a maximum effluent temperature limitation of 86°F is included in the Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100°F temperature which was formerly used in permits was not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. It is impracticable to use a 7-day average or a 30-day average limitation for temperature, because *it is not as protective as of beneficial uses as a daily maximum limitation is*. A daily maximum limit is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA.

Section IV.A.1.c. of the Order contains the following effluent limitation for temperature:

“The temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature.”

The above effluent limitation for temperature has been quoted in all recent NPDES permits adopted by this Regional Water Board. Section V.A.1. of the Order explains how compliance with the receiving water temperature limitation will be determined.

xii. **Turbidity**

Turbidity is an expression of the optical property that causes light to be scattered in water due to particulate matter such as clay, silt, organic matter, and microscopic organisms. Turbidity can result in a variety of water quality impairments. The effluent limitation for turbidity which reads, “For the protection of the water contact recreation beneficial use, the discharge to water

courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed: (a) a daily average of 2 Nephelometric turbidity units (NTU); (b) 5 NTU more than 5 percent of the time (72 minutes) during any 24 hour period; and (c) 10 NTU at any time” is based on the Basin Plan (page 3-17) and section 60301.320 of Title 22 CCR, Chapter 3, “Filtered Wastewater.”

xiii. **Radioactivity**

Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. The existing effluent limitation for radioactivity which reads, “Radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, Chapter 15, Article 5, Sections 64442 and 64443, of the California Code of Regulations, or subsequent revisions,” is based on the Basin Plan incorporation of Title 22 CCR, *Drinking Water Standards*, by reference, to protect the surface water MUN beneficial use. Based on the current designated uses, a limit for radioactivity is unnecessary unless the discharge is to a reach used for groundwater recharge (GWR), where Title 22-based standards apply. Because the groundwater is designated with the GWR beneficial use, this Order retains the limitation for radioactivity to protect the GWR beneficial use.

c. **CTR and SIP**

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

3. Determining the Need for WQBELs

The Regional Water Board developed WQBELs for ammonia-nitrogen, nitrite-nitrogen, nitrate-nitrogen, nitrite plus nitrite as nitrogen, cadmium, copper, lead, and zinc that have available WLAs established in a TMDL. The effluent limitations for these pollutants were established regardless of whether or not there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standards. The Regional Water Board developed WQBELs for these pollutants pursuant to 40 CFR section 122.44(d)(1)(vii)B, which does not require or contemplate a reasonable potential analysis (RPA). The NPDES regulations at 40CFR 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. Thus, consistent with the federal requirement and with the NPDES Permit Writers’ Manual (EPA-833-K-10-001, September 2010), final effluent limitations have been included in this Order for cadmium, copper, lead, and zinc for which a WLA has been assigned to the permitted facility through a TMDL.

For those priority pollutants that have no assigned WLAs under a TMDL, in accordance with Section 1.3 of the SIP, Regional Water Board staff conducted an RPA for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion

above a state water quality standard. For all parameters that demonstrate reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Regional Water Board staff identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Permittee. The monitoring data cover the period from February 20012 to December 2015.

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

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

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

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

NPDES Permit Writers' Manual (EPA-833-K-10-001), September 2010 also cited that even without a TMDL, a permitting authority could, at its own discretion, determine that WQBELs are needed for any pollutant associated with impairment of a waterbody. A permitting authority might also determine that WQBELs are required for specific pollutants for all facilities that exhibit certain operational or discharge characteristics. The cyanide concentration in the LAGWRP effluent has in the past exceeded cyanide effluent limitations. On two occasions during this permit cycle, cyanide had an effluent concentration of 5 µg/L, which exceeded the AMEL of 4.3 µg/L. However, this exceedance did not result in violation of AMEL because another sample was collected that lowered the monthly average and the average was thus in compliance with the AMEL. There are also three cyanide concentrations that are at least 4 µg/L. The Los Angeles River downstream from the facility is also impaired with cyanide and is listed on the 303(d) list of impaired waters. Because the Los Angeles River is impaired with cyanide, the cyanide's effluent variability exhibited by the facility and its compliance history, staff has determined based on best professional judgment that the discharge of cyanide has a reasonable potential to cause or contribute to an excursion above a state water quality standard.

Diazinon is not a priority pollutant. However, diazinon is listed on the USEPA's National Recommended Water Quality Criteria with freshwater aquatic life protection of: (1) 4-day average of 0.05 µg/L, and (2) 1-hr average of 0.08 µg/L. The MEC for diazinon is 0.53 µg/L. The Los Angeles River is also impaired for diazinon and is listed on the 303(d) list. Therefore, the discharge of diazinon has a potential to cause or contribute to an excursion above a water quality standard.

Based on the RPA, the pollutants that demonstrate reasonable potential are cyanide, bis(2-ethylhexyl)phthalate, diazinon, dibenzo(a,h)anthracene, and dieldrin. The following Table summarizes results from RPA.

Table F-10. Summary of Reasonable Potential Analysis for CTR Based Priority Pollutants

| CTR No. | Constituent | Applicable Water Quality Criteria (C) µg/L | Max Effluent Conc. (MEC) µg/L | Maximum Detected Receiving Water Conc. (B) µg/L | RPA Result - Need Limitation ? | Reason |
|-----------|---------------------------|---|----------------------------------|--|--------------------------------|--|
| 1 | Antimony | 4300 | 0.62 | 1.24 | No | C>B, C>MEC |
| 2 | Arsenic | 150 | 4.5 | 6.77 | No | C>B, C>MEC |
| 3 | Beryllium | Narrative | 0.04 | 0.03 | No | C>B, C>MEC |
| 4 | Cadmium | 5.3 | 3.36 | 1.31 | Yes | TMDL WLA |
| 5a | Chromium III | 549.5 | 2.02 | 3.39 | No | C>B, C>MEC |
| 5b | Chromium VI | 11 | <0.05 | 0.8 | No | C>B, C>MEC |
| 6 | Copper | 26 | 17.4 | 12.4 | Yes | TMDL WLA |
| 7 | Lead | 12 | 0.89 | 1.34 | Yes | TMDL WLA |
| 8 | Mercury | 0.051 | 0.019 | 0.008 | No | C>B, C>MEC |
| 9 | Nickel | 93 | 5.7 | 4.6 | No | C>B, C>MEC |
| 10 | Selenium | 5 | 1.94 | 2.32 | No | C>B, C>MEC |
| 11 | Silver | 11 | 0.1 | 0.2 | No | C>B, C>MEC |
| 12 | Thallium | 6.3 | 0.54 | 0.2 | No | C>B, C>MEC |
| 13 | Zinc | 253 | 66 | 58 | Yes | TMDL WLA |
| 14 | Cyanide | 5.2 | 5 | <4 | Yes | 303 (d) list, BPJ, MEC exceeded the AMEL. |
| 15 | Asbestos | 7x10 ⁶ fibers/L | No sample | No sample | No | N/A |
| 16 | 2,3,7,8-TCDD (Dioxin) | 1.4x10 ⁻⁰⁸ | ND | ND | No | C>B, C>MEC |
| 17 | Acrolein | 780 | <0.81 | <0.81 | No | C>B, C>MEC |
| 18 | Acrylonitrile | 0.66 | <0.17 | <0.17 | No | C>B, C>MEC |
| 19 | Benzene | 71 | <0.13 | <0.13 | No | C>B, C>MEC |
| 20 | Bromoform | 360 | 0.85 | <0.11 | No | C>B, C>MEC |
| 21 | Carbon Tetrachloride | 4.4 | <0.18 | <0.18 | No | C>B, C>MEC |
| 22 | Chlorobenzene | 21,000 | <0.1 | <0.1 | No | C>B, C>MEC |
| 23 | Dibromochloro-methane | 34 | 3.94 | 0.21 | No | C>B, C>MEC |
| 24 | Chloroethane | No criteria | <0.13 | <0.13 | No | No criteria |
| 25 | 2-chloroethyl vinyl ether | No criteria | <0.37 | <0.37 | No | No criteria |
| 26 | Chloroform | 80 | 16.2 | 0.95 | No | C>B, C>MEC |
| 27 | Dichlorobromo-methane | 46 | 10.0 | 0.27 | No | C>B, C>MEC |
| 28 | 1,1-dichloroethane | No criteria | <0.13 | <0.13 | No | No criteria |
| 29 | 1,2-dichloroethane | 99 | <0.07 | <0.07 | No | C>B, C>MEC |
| 30 | 1,1-dichloroethylene | 3.2 | <0.17 | <0.17 | No | C>B, C>MEC |
| 31 | 1,2-dichloropropane | 39 | <0.09 | <0.09 | No | C>B, C>MEC |
| 32 | 1,3-dichloropropylene | 1,700 | No data | No data | No | C>B, C>MEC |
| 33 | Ethylbenzene | 29,000 | <0.09 | <0.11 | No | C>B, C>MEC |
| 34 | Methyl bromide | 4,000 | 3.3 | <0.11 | No | C>B, C>MEC |
| 35 | Methyl chloride | No criteria | <0.07 | <0.13 | No | No criteria |

| CTR No. | Constituent | Applicable Water Quality Criteria (C) µg/L | Max Effluent Conc. (MEC) µg/L | Maximum Detected Receiving Water Conc. (B) µg/L | RPA Result - Need Limitation ? | Reason |
|-----------|--|---|----------------------------------|--|--------------------------------|-------------------------|
| 36 | Methylene chloride | 1,600 | <0.08 | <0.08 | No | C>B, C>MEC |
| 37 | 1,1,2,2-tetrachloroethane | 11 | <0.02 | <0.02 | No | C>B, C>MEC |
| 38 | Tetrachloroethylene | 8.85 | <0.09 | 0.50 | No | C>B, C>MEC |
| 39 | Toluene | 200,000 | <0.15 | 0.5 | No | C>B, C>MEC |
| 40 | Trans 1,2-Dichloroethylene | 140,000 | <0.2 | <0.2 | No | C>B, C>MEC |
| 41 | 1,1,1-Trichloroethane | No criteria | <0.17 | <0.17 | No | C>B, C>MEC |
| 42 | 1,1,2-Trichloroethane | 42 | <0.06 | <0.06 | No | C>B, C>MEC |
| 43 | Trichloroethylene | 81 | <0.12 | <0.12 | No | C>B, C>MEC |
| 44 | Vinyl Chloride | 525 | <0.16 | <0.16 | No | C>B, C>MEC |
| 45 | 2-chlorophenol | 400 | <0.22 | <0.22 | No | C>B, C>MEC |
| 46 | 2,4-dichlorophenol | 790 | <0.22 | <0.22 | No | C>B, C>MEC |
| 47 | 2,4-dimethylphenol | 2,300 | <0.22 | <0.22 | No | C>B, C>MEC |
| 48 | 4,6-dinitro-o-cresol(aka 2-methyl-4,6-Dinitrophenol) | 765 | <0.44 | <1.16 | No | C>B, C>MEC |
| 49 | 2,4-dinitrophenol | 14,000 | <0.67 | <1.02 | No | C>B, C>MEC |
| 50 | 2-nitrophenol | No criteria | <0.24 | <0.24 | No | No criteria |
| 51 | 4-nitrophenol | No criteria | <0.35 | <0.5 | No | No criteria |
| 52 | 3-Methyl-4-Chlorophenol (aka P-chloro-m-cresol) | No criteria | <0.26 | <0.26 | No | No criteria |
| 53 | Pentachlorophenol | 8.2 | 0.49 | <0.62 | No | C>B, C>MEC |
| 54 | Phenol | 4,600,000 | <0.25 | <0.25 | No | C>B, C>MEC |
| 55 | 2,4,6-trichlorophenol | 6.5 | <0.39 | 0.67 | No | C>B, C>MEC |
| 56 | Acenaphthene | 2,700 | <0.06 | <0.1 | No | C>B, C>MEC |
| 57 | Acenaphthylene | No criteria | <0.05 | <0.09 | No | No criteria |
| 58 | Anthracene | 110,000 | <0.05 | <0.05 | No | C>B, C>MEC |
| 59 | Benzidine | 0.00054 | <0.3 | <0.9 | No | C>B, C>MEC |
| 60 | Benzo(a)Anthracene | 0.049 | <0.03 | 0.07 | No | C>B, C>MEC |
| 61 | Benzo(a)Pyrene | 0.049 | <0.05 | <0.06 | No | C>B, C>MEC |
| 62 | Benzo(b)Fluoranthene | 0.049 | <0.06 | <0.06 | No | C>B, C>MEC |
| 63 | Benzo(ghi)Perylene | No criteria | <0.03 | <0.03 | No | No criteria |
| 64 | Benzo(k)Fluoranthene | 0.049 | <0.06 | <0.06 | No | C>B, C>MEC |
| 65 | Bis(2-Chloroethoxy) methane | No criteria | <0.16 | <0.16 | No | No criteria |
| 66 | Bis(2-Chloroethyl)Ether | 1.4 | <0.18 | <0.18 | No | C>B, C>MEC |
| 67 | Bis(2-Chloroisopropyl) Ether | 170,000 | <0.17 | <0.17 | No | C>B, C>MEC |
| 68 | Bis(2-Ethylhexyl) Phthalate | 4 | 16.5 | 1.05 | Yes | Tier 1: MEC>C |

| CTR No. | Constituent | Applicable Water Quality Criteria (C) µg/L | Max Effluent Conc. (MEC) µg/L | Maximum Detected Receiving Water Conc. (B) µg/L | RPA Result - Need Limitation ? | Reason |
|-----------|--------------------------------|---|----------------------------------|--|--------------------------------|-----------------------------|
| 69 | 4-Bromophenyl Phenyl Ether | No criteria | <0.15 | <0.15 | No | No criteria |
| 70 | Butylbenzyl Phthalate | 5,200 | 0.14 | <0.11 | No | C>B, C>MEC |
| 71 | 2-Chloronaphthalene | 4,300 | <0.14 | <0.14 | No | C>B, C>MEC |
| 72 | 4-Chlorophenyl Phenyl Ether | No criteria | <0.17 | <0.17 | No | No criteria |
| 73 | Chrysene | 0.049 | <0.04 | 0.08 | No | B>C but ND at the effluent. |
| 74 | Dibenzo(a,h) Anthracene | 0.049 | 0.05 | <0.02 | Yes | Tier 1: MEC>C |
| 75 | 1,2-Dichlorobenzene | 17,000 | <0.16 | <0.16 | No | C>B, C>MEC |
| 76 | 1,3-Dichlorobenzene | 2,600 | <0.1 | <0.1 | No | C>B, C>MEC |
| 77 | 1,4-Dichlorobenzene | 2,600 | <0.11 | <0.11 | No | C>B, C>MEC |
| 78 | 3-3'-Dichlorobenzidine | 0.077 | <0.51 | <1.81 | No | C>B, C>MEC |
| 79 | Diethyl Phthalate | 120,000 | <0.25 | <0.47 | No | C>B, C>MEC |
| 80 | Dimethyl Phthalate | 2,900,000 | <0.13 | <0.23 | No | C>B, C>MEC |
| 81 | Di-n-Butyl Phthalate | 12,000 | 0.83 | 0.31 | No | C>B, C>MEC |
| 82 | 2-4-Dinitrotoluene | 9.1 | <0.13 | <0.13 | No | C>B, C>MEC |
| 83 | 2-6-Dinitrotoluene | No criteria | <0.15 | <0.15 | No | No criteria |
| 84 | Di-n-Octyl Phthalate | No criteria | <0.18 | 0.18 | No | No criteria |
| 85 | 1,2-Diphenylhydrazine | 0.54 | <0.14 | <0.14 | No | C>B, C>MEC |
| 86 | Fluoranthene | 370 | <0.02 | <0.02 | No | C>B, C>MEC |
| 87 | Fluorene | 14,000 | <0.02 | <0.02 | No | C>B, C>MEC |
| 88 | Hexachlorobenzene | 50 | <0.17 | <0.17 | No | C>B, C>MEC |
| 89 | Hexachlorobutadiene | 50 | <0.14 | <0.23 | No | C>B, C>MEC |
| 90 | Hexachlorocyclopentadiene | 17,000 | <0.05 | <0.16 | No | C>B, C>MEC |
| 91 | Hexachloroethane | 8.9 | <0.14 | <0.23 | No | C>B, C>MEC |
| 92 | Indeno(1,2,3-cd)Pyrene | 0.049 | <0.02 | <0.02 | No | C>B, C>MEC |
| 93 | Isophorone | 600 | <0.15 | <0.15 | No | C>B, C>MEC |
| 94 | Naphthalene | No criteria | <0.04 | <0.12 | No | No criteria |
| 95 | Nitrobenzene | 1,900 | <0.18 | <0.18 | No | C>B, C>MEC |
| 96 | N-Nitrosodimethylamine | 8.1 | <0.13 | <0.13 | No | C>B, C>MEC |
| 97 | N-Nitrosodi-n-Propylamine | 1.4 | <0.15 | <0.15 | No | C>B, C>MEC |
| 98 | N-Nitrosodiphenylamine | 16 | <0.23<0.23 | ND | No | C>B, C>MEC |
| 99 | Phenanthrene | No criteria | <0.01 | <0.01 | No | No criteria |
| 100 | Pyrene | 11,000 | <0.02 | <0.02 | No | C>B, C>MEC |
| 101 | 1,2,4-Trichlorobenzene | No criteria | <0.13 | <0.13 | No | No criteria |
| 102 | Aldrin | 0.00014 | <0.002 | <0.002 | No | C>B, C>MEC |
| 103 | Alpha-BHC | 0.013 | 0.002 | <0.001 | No | C>B, C>MEC |

| CTR No. | Constituent | Applicable Water Quality Criteria (C) µg/L | Max Effluent Conc. (MEC) µg/L | Maximum Detected Receiving Water Conc. (B) µg/L | RPA Result - Need Limitation ? | Reason |
|---------|-------------------------|---|----------------------------------|--|--------------------------------|-------------------------|
| 104 | Beta-BHC | 0.046 | <0.002 | <0.002 | No | C>B, C>MEC |
| 105 | Gamma-BHC (aka Lindane) | 0.063 | <0.001 | <0.001 | No | C>B, C>MEC |
| 106 | delta-BHC | No criteria | <0.001 | <0.001 | No | No criteria |
| 107 | Chlordane | 0.00059 | <0.023 | <0.023 | No | C>B, C>MEC |
| 108 | 4,4'-DDT | 0.00059 | <0.001 | <0.001 | No | C>B, C>MEC |
| 109 | 4,4'-DDE | 0.00059 | <0.001 | <0.001 | No | C>B, C>MEC |
| 110 | 4,4'-DDD | 0.00084 | <0.001 | <0.001 | No | C>B, C>MEC |
| 111 | Dieldrin | 0.00014 | 0.002 | <0.002 | Yes | Tier 1: MEC>C |
| 112 | Alpha-Endosulfan | 0.056 | <0.001 | <0.001 | No | C>B, C>MEC |
| 113 | Beta-Endosulfan | 0.056 | <0.001 | <0.001 | No | C>B, C>MEC |
| 114 | Endosulfan Sulfate | 240 | <0.001 | <0.001 | No | C>B, C>MEC |
| 115 | Endrin | 0.036 | <0.003 | <0.003 | No | C>B, C>MEC |
| 116 | Endrin Aldehyde | 0.81 | <0.001 | <0.001 | No | C>B, C>MEC |
| 117 | Heptachlor | 0.00021 | <0.002 | <0.002 | No | C>B, C>MEC |
| 118 | Heptachlor Epoxide | 0.00011 | <0.002 | <0.002 | No | C>B, C>MEC |
| 119 | PCB 1016 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 120 | PCB 1221 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 121 | PCB 1232 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 122 | PCB 1242 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 123 | PCB 1248 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 124 | PCB 1254 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 125 | PCB 1260 | 0.00017 | <0.019 | <0.019 | No | C>B, C>MEC |
| 126 | Toxaphene | 0.0002 | <0.041 | <0.041 | No | C>B, C>MEC |
| | Diazinon | 0.05 | 0.53 | <0.006 | Yes | Tier 1: MEC>C |

4. WQBEL Calculations

- a. **Calculation Options.** Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include:
 - i. Use WLA from applicable TMDL
 - ii. Use a steady-state model to derive MDELs and AMELs.
 - iii. Where sufficient data exist, use a dynamic model which has been approved by the State Water Board.
- b. **Los Angeles River Metals TMDL Calculation Procedure.**

Discharge Point 001 discharges into the Los Angeles River, Reach 3 as described by the *LA River Metals TMDL*. Reach 3 has wet-weather WLAs for cadmium, copper, lead, and zinc (5.3 µg/L, 26 µg/L, 12 µg/L, and 253 µg/L, respectively). Reach 3 has dry-weather WLAs only for copper and lead (26 µg/L and 12 µg/L, respectively). Wet-weather allocations are based on dry-weather in-stream numeric

targets because the POTWs exert the greatest influence over in-stream water quality during dry weather, and collectively they contribute minimally to the total wet-weather loading. During dry-weather, the concentration-based and mass-based waste load allocations apply. In wet weather, the mass-based WLAs do not apply when the influent flows exceed the design capacity of the treatment plants.

According to the *LA River Metals TMDL* implementation section, permit writers may translate applicable WLAs into effluent limitations by applying the effluent limitation procedures in Section 1.4 of the SIP or other applicable engineering practices authorized under federal regulations.

- i. Copper: Tier 1 and Tier 2 of the SIP RPA procedures were not triggered for copper. However, Tier 3 of the SIP RPA procedures was triggered because the *LA River Metals TMDL* establishes WLAs for this pollutant. Therefore, a WQBEL derived using CTR/SIP has been prescribed for copper. In this permit, the TMDL-established WLAs for copper (26 µg/L), the TMDL hardness of 278 mg/L, and a 0.3 coefficient of variation were used to calculate the WQBELs based on SIP/CTR procedures. The final effluent limitations for copper apply to both wet and dry weather conditions. Therefore, the effluent limitations for copper apply all-year round.

On April 9, 2015, the Regional Water Board adopted Resolution No. R15-004, an amendment to the Basin Plan to revise the *LA River Metals TMDL*. The amendment revises the TMDL to adjust the numeric targets for copper in Reaches 1-4 of the Los Angeles River and the Burbank Western Channel and the corresponding WLAs for the Donald C. Tillman, Los Angeles-Glendale, and Burbank WRPs based on a water effect ratio (WER). The Los Angeles-Glendale WRP's WER for copper is 3.97. The revision also stated that:

“Regardless of the WER, for discharges regulated under this TMDL with concentrations below WER-adjusted allocations, effluent limitations shall ensure that effluent concentrations do not exceed the levels of water quality that can be reliably maintained by the facility's applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and antidegradation requirements are met. Permit compliance with antidegradation and anti-backsliding requirements shall be documented in permit fact sheets.”

In order to comply with the TMDL requirement above, staff evaluated the facility's performance data associated with the removal of copper. During the last five years of treatment plant operation, the facility has been in full compliance with the current copper AMEL and MDEL set at 24 µg/L and 34 µg/L, respectively. The MEC is equal to 17.4 µg/L detected on September 3, 2014. Since 2012, the treatment plant's performance with regard to the average copper effluent concentration was approximately 9 µg/L.

By following the same rationale and methodology used in calculating the ammonia performance based WQBELs as previously discussed for ammonia, the calculated copper WQBEL as AMEL for LAGWRP reflective of plant performance shall be equal to MEC + MOSF of 20% of 17.4 µg/L. From the facility's data, the MEC for copper is equal to 17.4 µg/L. Copper performance based AMEL shall be set equal to 17.4 + (20% of 17.4) = 21 µg/L. However, the calculated performance based WQBEL of 21 µg/L is even lower than the current copper final effluent limitations of 24 µg/L and 34 µg/L as AMEL and

MDEL, respectively. As a result, based on best professional judgment, the current copper final effluent limitations of 24 µg/L and 34 µg/L as AMEL and MDEL, respectively, will be retained.

In contrast, if the assigned WER of 3.97 for copper is applied, the effluent limitations would have been: AMEL = 3.97 x 24 = 95 µg/L and MDEL = 3.97 x 34 = 135 µg/L. In the absence of an antidegradation analysis and anti-backsliding analysis of best practicable treatment or control that would allow for a less stringent effluent limitation, the performance based MDEL from the current permit has been retained as the MDEL for this permit.

Figure F-2 below presents the facility’s copper performance data. The figure indicates that when the performance based WQBELs for AMEL and MDEL set at 24 µg/L and 34 µg/L, respectively, the facility can consistently comply with the copper final effluent limitations. Maintaining compliance with copper limits shall ensure that the quality of the receiving water with respect to copper shall not be degraded. Because the Los Angeles River flow during dry-weather is effluent-dominated, the quality of the discharged effluent will directly influence the level of the receiving water quality. The summary of copper final effluent limitations is presented in Table F-11.

Figure F-2. Copper Performance Data

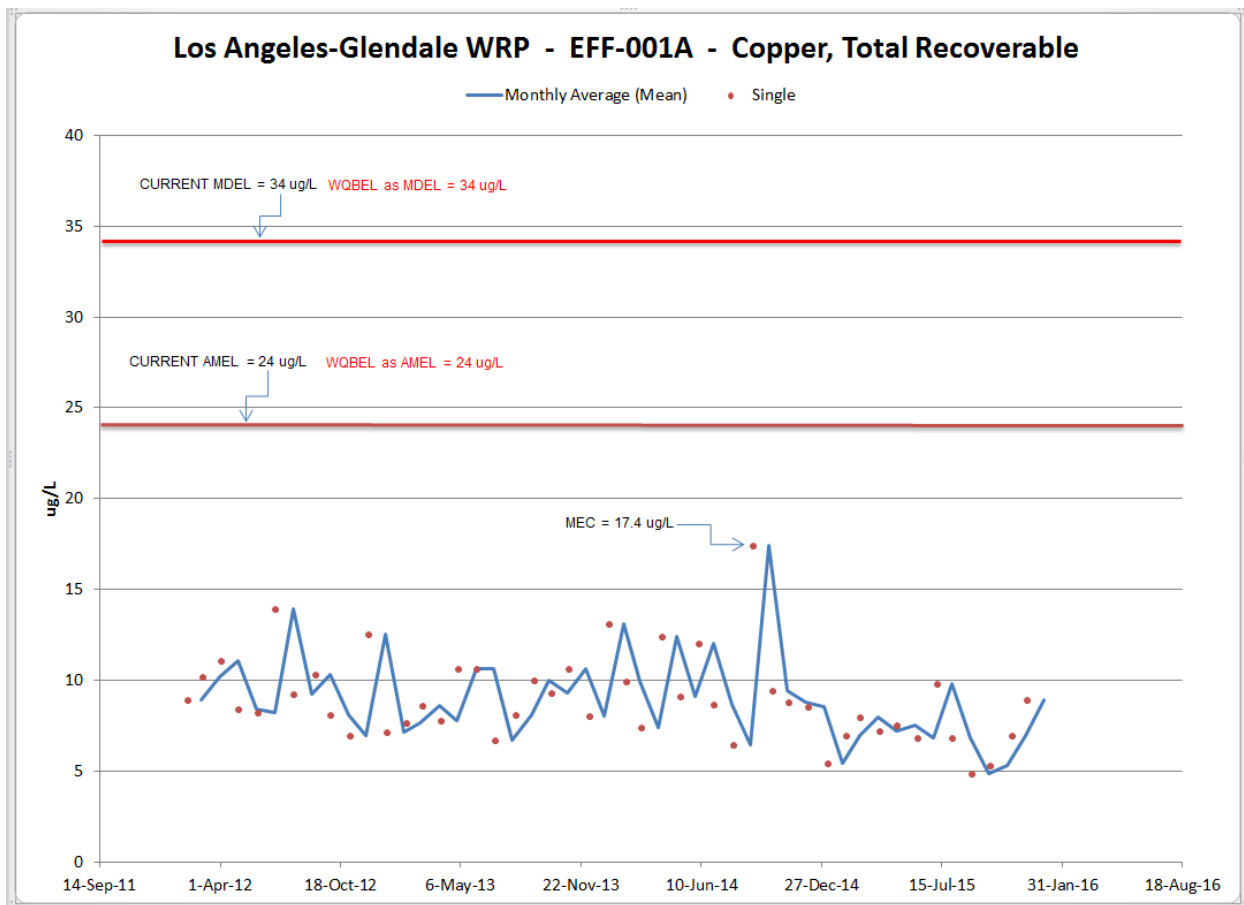


Table F-11. Summary of Copper Effluent Limitations for Discharge Point 001

| Parameter | Units | Calculated using Copper WER | | WQBELS | | Final for this Order | |
|-------------------------|----------------------|-----------------------------|---------------|-----------------|---------------|----------------------|---------------|
| | | Average Monthly | Maximum Daily | Average Monthly | Daily Maximum | Average Monthly | Maximum Daily |
| Copper (all year round) | µg/L | 95 | 135 | 24 | 34 | 24 | 34 |
| | lbs/day ⁸ | 15.8 | 22.5 | 4.0 | 5.7 | 4.0 | 5.7 |

- ii. Lead: Tier 1 and Tier 2 of the SIP RPA procedures were not triggered for lead. However, Tier 3 was triggered because the *LA River Metals TMDL* establishes WLAs for this pollutant. In this permit, the TMDL-established WLAs for lead (12 µg/L), the USEPA default conversion factors, the TMDL hardness of 278 mg/L, and a 0.4 coefficient of variation were used to calculate the WQBELS based on SIP/CTR procedures. The final effluent limitations for lead apply to both wet and dry weather conditions and shall apply all-year round.
- iii. Cadmium: Tier 1 and Tier 2 of the SIP RPA procedures were not triggered for cadmium. However, Tier 3 was triggered because the *LA River Metals TMDL* establishes WLAs for this pollutant. In this permit, the TMDL-established WLA for cadmium (5.3 µg/L), the USEPA default conversion factors, the TMDL hardness of 278 mg/L, and a 2.3 coefficient of variation were used to calculate the WQBELS based on SIP/CTR procedures. The final effluent limitations for cadmium apply to wet weather conditions only.
- iv. Zinc: Tier 1 and Tier 2 of the SIP RPA procedures were not triggered for zinc. However, Tier 3 was triggered because the *LA River Metals TMDL* establishes WLAs for this pollutant. In this permit, the TMDL-established WLA for zinc (253 µg/L), the USEPA default conversion factors, the TMDL hardness of 278 mg/L, and a 0.1 coefficient of variation were used to calculate the WQBELS based on SIP/CTR procedures. The final effluent limitations for zinc apply to wet weather conditions only.

The metals effluent limitations prescribed in this Order are consistent with the SIP Procedures and TMDL WLAs.

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

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

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

Sample calculation for Dibenzo(a,h)anthracene:

Step 1: Identify applicable water quality criteria.

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

Freshwater Aquatic Life Criteria:

CMC = NA µg/L (CTR page 31714, column B1) and

CCC = NA $\mu\text{g/L}$ (CTR page 31714, column B2); and

Human Health Criteria for Organisms only = 0.049 $\mu\text{g/L}$ (CTR page 31714, column D2).

Step 2: Calculate effluent concentration allowance (ECA).

ECA = Criteria in CTR, since no dilution is allowed.

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

Calculate CV:

$$\begin{aligned} \text{CV} &= \text{Standard Deviation}/\text{Mean} \\ &= 0.6 \end{aligned}$$

Find the ECA Multipliers from SIP Table 1 (page 7), or by calculating them using equations on SIP page 6. When CV = 0.6, then:

$$\text{ECA Multiplier acute} = 0.321$$

$$\text{ECA Multiplier chronic} = 0.527$$

$$\begin{aligned} \text{LTA acute} &= \text{ECA acute} \times \text{ECA Multiplier acute} \\ &= (\text{NA}) \mu\text{g/L} \times 0.321 = \text{NA} \mu\text{g/L} \end{aligned}$$

$$\begin{aligned} \text{LTA chronic} &= \text{ECA chronic} \times \text{ECA Multiplier chronic} \\ &= (\text{NA}) \mu\text{g/L} \times 0.527 = \text{NA} \mu\text{g/L} \end{aligned}$$

Step 4: Select the lowest LTA.

In this case, the lowest LTA is not applicable.

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

Find the multipliers from SIP Table 2 (page 9). You need to know CV and n (frequency of sample collection per month). If effluent samples are collected 4 times a month or less, then n = 4. CV was determined to be 0.6 in a previous step.

$$\text{AMEL Multiplier} = 1.55$$

$$\text{MDEL Multiplier} = 3.11$$

$$\begin{aligned} \text{AMEL aquatic life} &= \text{lowest LTA (from Step 4)} \times \text{AMEL Multiplier} \\ &= (\text{NA}) \mu\text{g/L} \times 1.55 = \text{NA} \mu\text{g/L} \end{aligned}$$

$$\begin{aligned} \text{MDEL aquatic life} &= \text{lowest LTA (from Step 4)} \times \text{MDEL Multiplier} \\ &= (\text{NA}) \mu\text{g/L} \times 3.11 = \text{NA} \mu\text{g/L} \end{aligned}$$

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

Find factors from SIP Table 2 (page 9). Given CV = 0.6 and n = 4.

For AMEL human health limit, there is no factor.

$$\text{The MDEL/AMEL human health factor} = 2.01$$

$$\text{AMEL human health} = \text{ECA} = 0.049 \mu\text{g/L}$$

$$\begin{aligned} \text{MDEL human health} &= \text{ECA} \times \text{MDEL/AMEL factor} \\ &= 0.049 \mu\text{g/L} \times 2.01 = 0.098 \mu\text{g/L} \end{aligned}$$

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

Lowest AMEL = 0.049 $\mu\text{g/L}$ (Based on human health protection)

Lowest MDEL = 0.098 $\mu\text{g/L}$ (Based on human health protection)

d. **Impracticability Analysis**

Federal NPDES regulations contained in 40 CFR part 122.45 states that all permit limitations, standards, and prohibitions, including those to achieve water quality standards, shall unless impracticable be stated as maximum daily and average monthly discharge limitations for all Permittees other than POTWs.

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

For example, a POTW sampling for a toxicant to evaluate compliance with a 7-day average limitation could fully comply with this average limit, but still be discharging toxic effluent on one, two, three, or up to four of these seven days and not be meeting 1-hour average acute criteria or 4-day average chronic criteria. For these reason, USEPA recommends daily maximum and 30-day average limits for regulating toxics in all NPDES discharges. For the purposes of protecting the acute effects of discharges containing toxicants (CTR human health for the ingestion of fish), daily maximum limitations have been established in this NPDES permit when a pollutant is considered to be a carcinogen, endocrine disruptor, and is bioaccumulative.

A 7-day average alone would not protect one, two, three, or four days of discharging pollutants in excess of the acute and chronic criteria. Fish exposed to these endocrine disrupting chemicals will be passed on to the human consumer. Endocrine disruptors alter hormonal functions by several means. These substances can:

- i. mimic or partly mimic the sex steroid hormones estrogens and androgens (the male sex hormone) by binding to hormone receptors or influencing cell signaling pathways.
- ii. block, prevent and alter hormonal binding to hormone receptors or influencing cell signaling pathways.
- iii. alter production and breakdown of natural hormones.
- iv. modify the making and function of hormone receptors.

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

Generally, mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limits. Concentration-based

effluent limits, on the other hand, discourage the reduction in treatment efficiency during low-flow periods and require proper operation of the treatment units at all times. In the absence of concentration-based effluent limits, a permittee would be able to increase its effluent concentration (i.e., reduce its level of treatment) during low-flow periods and still meet its mass-based limits. To account for this, this permit includes mass and concentration limits for some constituents.

Table F-12. Summary of WQBELs for Discharge Point 001

| Parameter | Units | Effluent Limitations | | | | |
|----------------------------|----------------------|----------------------|----------------|-------------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Cadmium (wet-weather) | µg/L | 2.8 ⁹ | -- | 8.9 ⁹ | | |
| | lbs/day ⁸ | 0.47 ¹⁰ | -- | 1.5 ¹⁰ | | |
| Copper (all year round) | µg/L | 24 | -- | 34 | | |
| | lbs/day ⁸ | 4.0 ¹⁰ | -- | 5.7 ¹⁰ | | |
| Lead (all year round) | µg/L | 10 | -- | 18 | | |
| | lbs/day ⁸ | 1.7 ¹⁰ | -- | 3.0 ¹⁰ | | |
| Zinc (wet-weather) | µg/L | 241 ⁹ | -- | 295 ⁹ | | |
| | lbs/day ⁸ | 40 ¹⁰ | -- | 49 ¹⁰ | | |
| Cyanide | µg/L | 4.3 | -- | 8.5 | | |
| | lbs/day ⁸ | 0.72 | -- | 1.4 | | |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 4 | -- | -- | | |
| | lbs/day ⁸ | 0.67 | -- | -- | | |
| Diazinon | µg/L | 0.04 | -- | 0.08 | | |
| | lbs/day ⁸ | 0.0067 | -- | 0.013 | | |
| Dibenzo(a,h)Anthracene | µg/L | 0.049 | -- | 0.098 | | |
| | lbs/day ⁸ | 0.0082 | -- | 0.016 | | |
| Dieldrin | µg/L | 0.00014 | -- | 0.00028 | | |
| | lbs/day ⁸ | 0.000023 | -- | 0.000047 | | |

⁹ Wet-weather effluent limitations apply when the maximum daily flow at the Los Angeles River Wardlow station is equal to or greater than 500 cubic feet per second.

¹⁰ The mass-based effluent limitations for cadmium, copper, lead, and zinc do not apply during wet weather when the influent exceeds the plant design flow rate of 20 mgd.

| Parameter | Units | Effluent Limitations | | | | |
|--|---------------------------------|----------------------|----------------|-----------------------|-----------------------|-----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum |
| Ammonia Nitrogen (as N) (ELS Present, April 1 – September 30) | mg/L | 3.7 | -- | 5.7 | | |
| | lbs/day ⁸ | 617 | -- | 951 | | |
| Ammonia Nitrogen (as N) (ELS Absent, October 1 – March 31) | mg/L | 3.7 | -- | 7.4 | | |
| | lbs/day ⁸ | 617 | -- | 1,234 | | |
| Chronic Toxicity ^{11, 12} | Pass or Fail, % Effect (TST) | Pass ¹³ | -- | Pass or % Effect < 50 | | |

5. 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. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level.

Because of the nature of industrial discharges into the POTW sewershed, it is possible that other toxic constituents could be present in the Los Angeles-Glendale WRP effluent, or could have synergistic or additive effects. There are three exceedances of the 1.0 TUc monthly median trigger for accelerated monitoring observed in the final effluent sampled in December 2012, February 2013, and October 2015. All acute toxicity testing results from the same period did not exceed any acute toxicity requirements. The chronic toxicity exceedances are presented in Table F-4. Regional Water Board staff determined that, pursuant to the SIP, reasonable potential exists for chronic toxicity. As such, the permit contains effluent limitations for chronic toxicity.

The 2011 permit contained narrative effluent limitations for acute toxicity and chronic toxicity. But the 2017 permit only contains final effluent limitations for chronic toxicity,

¹¹ The median monthly effluent limitation (MMEL) shall be reported as “Pass” or “Fail.” The maximum daily effluent limitation (MDEL) shall be reported “Pass” or “Fail” and “% Effect.” The MMEL for chronic toxicity shall only apply when there is a discharge on more than one day in a calendar month period. During such calendar months, up to three independent toxicity tests may be conducted when one toxicity test results in “Fail.”

¹² A numeric WQBEL is established because effluent data showed that there is reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations will be implemented using the *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013), current USEPA guidance in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June /2010)* and *EPA Regions 8, 9, and 10 Toxicity Training Tool (January 2010)*, <http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tool-january-2010>.

¹³ This is a Median Monthly Effluent Limitation.

expressed as a monthly median and a daily maximum. Since chronic toxicity is a more stringent requirement than acute toxicity, removal of the numeric acute toxicity effluent limitation from the 2011 permit does not constitute backsliding.

The effluent limitations for chronic toxicity were established because effluent data showed that there is reasonable potential for the pollutants to be present in the discharge at levels that would cause or contribute to a violation of water quality standard.

In the past, the State Water Board reviewed the circumstances warranting a numeric chronic toxicity effluent limitation when there is reasonable potential with respect to SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions]. On September 16, 2003, at a public hearing, the State Water Board adopted Order No. 2003-0012 (Los Coyotes Order) deferring the issue of numeric chronic toxicity effluent limitations until a subsequent Phase of the SIP is adopted. In the meantime, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1.0 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. The Los Angeles-Glendale WRP 2011 permit contained a narrative chronic toxicity limitation consistent with the direction received by the State Water Board.

However, many facts have changed since the State Water Board adopted the Los Coyotes Order in 2003. USEPA published two new guidance documents with respect to chronic toxicity testing; the Los Angeles Regional Water Board adopted NPDES permits for industrial facilities incorporating TST-based effluent limitations for chronic toxicity and has adopted numeric chronic toxicity effluent limitations for industrial facilities and POTWs with TMDL WLAs of 1.0 TUc; and the Santa Ana Regional Water Board adopted an NPDES permit for a POTW incorporating TST-based effluent limitations for chronic toxicity. In addition to these factual developments, the State Water Board has not adopted a revised policy that addresses chronic toxicity effluent limitations in NPDES permits for inland discharges, as anticipated by the Los Coyotes Order. Because the Los Coyotes Order explicitly “declined to make a determination ... regarding the propriety of the final numeric effluent limitations for chronic toxicity...,” (Los Coyotes Order, p. 9) and because of the differing facts before the Regional Water Board in 2014 as compared to the facts that were the basis for the Los Coyotes Order in 2003, the Regional Water Board concludes that the Los Coyotes Order does not require inclusion of narrative rather than numeric effluent limitations for chronic toxicity. Further, the Regional Water Board finds that numeric effluent limitations for chronic toxicity are necessary, feasible, and appropriate.

On July 7, 2014, the Chief Deputy of the Water Quality Division announced that the State Water Board would be releasing a revised version of the Chronic Toxicity Plan for public comment and that has not yet occurred. Because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective, this Order contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirements contained in this Order are to be determined in accordance to sections VII.J. This Order contains a reopener to allow the Regional Water Board to modify the permit, if necessary, to make it consistent with any new policy, law, or regulation.

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

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

Later in June 2010, USEPA published another guidance document titled, 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 USEPA'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 Freshwater Organisms* (EPA/821/R-02/013, 2002), recognizes that, "the statistical methods in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

USEPA's WET testing program and acute and chronic WET methods rely on the measurement result for a specific test endpoint, not upon achievement of specified concentration-response patterns to determine toxicity. USEPA's WET methods do not require achievement of specified effluent or ambient concentration-response patterns prior to determining that toxicity is present¹⁴. Nevertheless, USEPA's acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed - as a component of test review following statistical analysis - to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2.). In 2000, USEPA provided guidance for such reviews to ensure that test endpoints for determining toxicity based on the statistical approaches utilized at the time the guidance was written (NOEC, LC50s, IC25s) were calculated appropriately (EPA 821-B-00-004).

¹⁴ See, Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed. Reg. 69952, 69963, November 19, 2002.

USEPA designed its 2000 guidance as a standardized step-by step review process that investigates the causes for 10 commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC50s, and IC25s, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: (1) that calculated effect concentrations are reliable and should be reported, (2) that calculated effect concentrations are anomalous and should be explained, or (3) that the test was inconclusive and should be repeated with a newly collected sample. The standardized review of the effluent and receiving water concentration-response patterns provided by USEPA's 2000 guidance decreased discrepancies in data interpretation for NOEC, LC50, and IC25 test results, thereby lowering the chance that a truly nontoxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA's TST statistical approach (pass/fail) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of 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 toxicity 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 Regional Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t-test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or PMSDs must be submitted for review by the Regional Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditation Program (40 CFR section 122.44(h)). As described in the bioassay laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, 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.

The Permittee may submit a request for a time schedule order upon an exceedance of the effluent limitations for chronic toxicity in this Order. In determining whether a time schedule order is appropriate, and the conditions and duration of such an order, the Regional Water Board or Executive Officer will consider the following factors among other relevant considerations: the facility's history of compliance with effluent limitations for chronic toxicity, including the magnitude and duration of any exceedances; history of

and information acquired from past TIEs or TREs conducted for the facility; and the efforts of the Permittee to achieve compliance with effluent limitations for chronic toxicity.

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR part 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are as stringent as those in the prior permit, Order No. R4-2011-0197, with the exception of the limitations for ammonia as nitrogen, and mercury. The discussion below is based upon whether the applicable water quality standard of the receiving water has or has not been attained.

a. Ammonia as Nitrogen: Non-Attainment Waters

For non-attainment waters, CWA section 303(d)(4)(A) allows the establishment of a less stringent effluent limitation when the receiving water has been identified as not meeting applicable water quality standards and the following conditions are met:

- i. The existing effluent limitation must have been based on a TMDL or other WLA established under CWA section 303.
- ii. Relaxation of the effluent limitation is only allowed if attainment of water quality standards will be ensured or the designated use not being attained is removed in accordance with the water quality standards regulations.

Regional Water Board permitting staff evaluated the ammonia as nitrogen concentrations in the effluent and in the receiving water and determined that the Los Angeles River, in the vicinity of the WRP discharge, is a non-attainment water because the water quality does not meet the levels necessary to protect the designated beneficial use and the water body is included on the 303(d) list. While the facility has not exceeded the TMDL-based MDEL contained in the 2011 NPDES Order, it would have exceeded the AMEL more than once were it not for the fact that the facility is allowed to collect multiple samples per month to calculate the average compliance value. The compliance approach for the effluent AMEL will ensure that the water quality standard will be attained in the receiving water. Thus, a less stringent AMEL for ammonia as nitrogen may be established. However, the full site specific objective for ammonia as nitrogen cannot be applied because NPDES regulations at § 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. Since the *LA River Nitrogen Compounds TMDL* contains the following specific language:

“Regardless of the SSO and SSO-derived WLAs, for discharges regulated under this TMDL with concentrations below site-specific water quality objectives, effluent limitations shall ensure effluent concentrations do not exceed the level of water quality that can be reliably maintained by the facility’s applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and anti-degradation requirements are met...”

Consistent with the TMDL, this Order includes AMELs for ammonia as nitrogen that are reflective of the performance of the WRP at the time of permit issuance with an adjustment factor that is intended to provide operational flexibility to POTWs during

the chloramination disinfection process in which ammonia is added back to the system to prevent the formation of trihalomethanes and to account for influent future flow variations associated with water conservation measures which may concentrate influent ammonia levels. Applying final effluent limitations that afford the full application of the site specific objective would be contrary to the intent of the *LA River Nitrogen Compounds TMDL*.

The final ammonia as nitrogen water quality based effluent limitations are consistent with the assumptions of the *LA River Nitrogen Compounds TMDL* and are in conformance with CWA Section 303(d)(4)(A) because they are intended to ensure that the water quality standard will be met in the receiving water. For the Los Angeles Glendale WRP, current performance is best represented by expressing the AMEL as the sum of the MEC plus a 20% MEC margin of safety factor. The MDEL was based on the TMDL SSO-derived WLA minus a 10% margin of safety.

b. Copper: Attainment Waters

Under CWA section 303(d)(4)(B), for attainment waters, a limitation based on a TMDL may only be relaxed where the action is consistent with the state's antidegradation policy. Regional Water Board permitting staff evaluated the copper concentrations in the effluent and in the receiving water and determined that the Los Angeles River, in the vicinity of the WRP discharge, is an attainment water because the water quality equals or exceeds the levels necessary to protect the designated beneficial use. This is supported by the statistical analysis conducted by Regional Water Board staff which found that the average copper effluent concentration was 9 µg/L and the average receiving water copper concentration, over the last three years at station RSW-LAG 654, was 7.2 µg/L. Moreover, NPDES regulations at 40 CFR section 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. Since the LA River Metals TMDL contains the following specific language:

“The WER for this constituent 'is 3.97. Regardless of the WER, for discharges regulated under this TMDL with concentrations below WER-adjusted allocations, effluent limitations shall ensure that effluent concentrations do not exceed the levels of water quality that can be reliably maintained by the facility's applicable treatment technologies existing at the time of permit issuance, reissuance, or modification unless anti-backsliding requirements in Clean Water Act section 402(o) and antidegradation requirements are met. Permit compliance with antidegradation and anti-backsliding requirements shall be documented in permit fact sheets.”

To be consistent with the TMDL, this order includes final effluent limitations for copper that are reflective of the performance of the WRP at the time of permit issuance. Applying final effluent limitations that afford the full application of the water effects ratio, taking up much of the assimilative capacity in the receiving water, would be contrary to the intent of the *LA River Metals TMDL*.

The final copper water quality based effluent limitations are consistent with the assumptions of the *LA River Metals TMDL* and are in conformance with CWA Section 303(d)(4)(B) because they are intended to prevent degradation of an attainment water. For the Los Angeles Glendale WRP, performance of the current treatment technology is best represented by keeping the existing AMEL. Since there was no indication that the MDEL would be exceeded in the near term, the MDEL limit is being retained.

In addition, this Order includes a reopener that allows for modification of the NPDES Order to recalculate the WQBEL for ammonia as nitrogen and/or copper, to incorporate a revised margin of safety factor (MOSF) reflective of plant performance consistent with and up to the maximum limits allowed by the applicable TMDLs, if the discharger provides new information to the Regional Water Board that shows the flow conditions or other extenuating circumstances cause a major change in the water reclamation plant's treatment performance and if anti-backsliding and antidegradation requirements are met,.

c. Mercury: Attainment Waters

The effluent limitations for mercury that were included in the prior order are not included in this Order because the discharge did not show reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria for mercury, based on the most recent monitoring data. Section 402(o)(2) of the Clean Water Act provides statutory exceptions to the general prohibition of backsliding contained in CWA section 402(o)(1). One of these exceptions allows backsliding if "information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance." The reasonable potential analysis based on the updated monitoring data justifies removal of the effluent limitation for mercury and this approach is consistent with the anti-backsliding requirements of the CWA and federal regulations. In addition, section 303(d)(4)(B) of the CWA allows relaxation of effluent limitations where the quality of the receiving water equals or exceeds the levels necessary to protect the designated uses of the water or otherwise required by applicable water quality standards, if the revision is subject to and consistent with the state's antidegradation policy. The Los Angeles River is not impaired for mercury. As described below, relaxation or removal of effluent limitations for this pollutant is consistent with the state and federal antidegradation policies. Therefore, the exception to the prohibition on relaxation of effluent limitations found in section 303(d)(4)(B) allows the removal of these effluent limitations.

The other effluent limitations contained in Order No. R4-2011-0197 as amended by R4-2011-0197-A01 remain because the pollutants continue to show reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria.

2. Antidegradation Policies

40 CFR part 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution No. 68-16, Statement of Policy with Respect to Maintaining the Quality of the Waters of the State. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR part 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR part 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded as a result of the permitted discharge. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

Discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16 because the discharge will not degrade existing high quality water. Effluent limitations for mercury are not included in this Order because monitoring data demonstrated that there is no reasonable potential for the discharge to cause or contribute to an exceedance of the water quality standard for mercury. The other effluent limitations that were relaxed are for pollutants for which the receiving water is impaired. The effluent limitations for ammonia nitrogen and copper are consistent with applicable TMDLs and will assure attainment of the water quality standard in the receiving water. No changes to the plant’s treatment facilities or processes are planned that would impact the concentrations of these constituents in the discharged effluent. Monitoring for these constituents in the effluent and receiving waters continue to be required under this Order. The Regional Water Board may modify the terms of this Order to prevent degradation of high quality waters based on any change in the concentration of these constituents in the effluent or receiving water that indicates that a degradation of high quality waters may occur. The treatment required by this Order is the best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the State will be maintained.

3. Stringency of Requirements for Individual Pollutants

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

Water quality-based effluent limitations have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR part 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and WQOs contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless “applicable water quality standards for purposes of the CWA” pursuant to 40 CFR part 131.21(c)(1). Collectively, this Order’s restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA.

Table F-13. Summary of Final Effluent Limitations for Discharge Point 001

| Parameter | Units | Effluent Limitations | | | | | Basis |
|-----------------------|----------------------|----------------------|----------------|---------------|-----------------------|-----------------------|-------------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | |
| BOD ₅ 20°C | mg/L | 20 | 30 | 45 | | | Tertiary treatment technology |
| | lbs/day ⁸ | 3,340 | 5,000 | 7,510 | | | |

| Parameter | Units | Effluent Limitations | | | | | Basis |
|---|----------------------|----------------------|-------------------|-------------------|-----------------------|-----------------------|-------------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | |
| TSS | mg/L | 15 | 40 | 45 | | | Tertiary treatment technology |
| | lbs/day ⁸ | 2,500 | 6,680 | 7,500 | | | |
| Turbidity ¹⁵ | NTU | 2 ¹⁵ | -- | 5 ¹⁵ | -- | 10 ¹⁵ | Tertiary treatment technology |
| pH | standard units | -- | -- | -- | 6.5 | 8.5 | Basin Plan |
| Temperature | °F | -- | -- | 86 ¹⁶ | | | USEPA Gold Book and BPJ |
| Radioactivity ¹⁷ | | | | | | | |
| Combined Radium-226 and Radium 228 | pCi/L | 5 ¹⁷ | -- | -- | | | Title 22 |
| Gross Alpha particle activity (excluding radon and uranium) | pCi/L | 15 ¹⁷ | -- | -- | | | Title 22 |
| Uranium | pCi/L | 20 ¹⁷ | -- | -- | | | Title 22 |
| Gross Beta/photon emitters | millirem/year | 4 ¹⁷ | -- | -- | | | Title 22 |
| Strontium-90 | pCi/L | 8 ¹⁷ | -- | -- | | | Title 22 |
| Tritium | pCi/L | 20,000 ¹⁷ | -- | -- | | | Title 22 |
| Total coliform ¹⁸ | MPN or CFU/100 mL | 23 ¹⁸ | 2.2 ¹⁸ | 240 ¹⁸ | | | Tertiary treatment technology |

¹⁵ For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the treated wastewater does not exceed any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time.

¹⁶ The temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature.

¹⁷ The radioactivity of the wastes discharged shall not exceed the limits specified in Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR), or subsequent revisions.

¹⁸ The wastes discharged to water courses shall at all times be adequately disinfected. For the purpose of this requirement, the wastes shall be considered adequately disinfected if: (1) the median number of total coliform bacteria in the disinfected effluent does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Unit (CFU) per 100 milliliters utilizing the bacteriological results of the last seven (7) days for which an analysis has been completed, (2) the number of total coliform bacteria does not exceed 23 MPN or CFU per 100 milliliters in more than one sample within any 30-day period, and (3) no sample shall exceed 240 MPN or CFU of total coliform bacteria per 100 milliliters. Samples shall be collected at a time when wastewater flow and characteristics are most demanding on treatment facilities and disinfection processes.

| Parameter | Units | Effluent Limitations | | | | | Basis |
|---|----------------------|----------------------|-------------------|-------------------|-----------------------|-----------------------|------------------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | |
| E.coli ¹⁹ | MPN or CFU/100 mL | 126 ¹⁹ | 2.2 ¹⁹ | 235 ¹⁹ | | | LA River Bacteria TMDL |
| Removal Efficiency for BOD and TSS | % | 85 | -- | -- | | | 40 CFR part 133 |
| Oil and Grease | mg/L | 10 | -- | 15 | | | Basin Plan narrative and BPJ |
| | lbs/day ⁸ | 1,670 | -- | 2,500 | | | |
| Settleable Solids | ml/L | 0.1 | -- | 0.3 | | | Basin Plan narrative and BPJ |
| Total Residual Chlorine | mg/L | -- | -- | 0.1 | | | Basin Plan |
| | lbs/day ⁸ | -- | -- | 17 | | | |
| Total Dissolved Solids | mg/L | 950 | -- | -- | | | Basin Plan |
| | lbs/day ⁸ | 158,600 | -- | -- | | | |
| Sulfate | mg/L | 300 | -- | -- | | | Basin Plan |
| | lbs/day ⁸ | 50,080 | -- | -- | | | |
| Chloride | mg/L | 190 | -- | -- | | | Basin Plan |
| | lbs/day ⁸ | 31,710 | -- | -- | | | |
| MBAS | mg/L | 0.5 | -- | -- | | | Basin Plan |
| | lbs/day ⁸ | 83 | -- | -- | | | |
| Ammonia Nitrogen (as N) (ELS Present, April 1 – September 30) | mg/L | 3.7 | -- | 5.7 | | | TMDL/ WQBELs & MOSF |
| | lbs/day ⁸ | 617 | -- | 951 | | | |
| Ammonia Nitrogen (as N) (ELS Absent, October 1 – March 31) | mg/L | 3.7 | -- | 7.4 | | | TMDL/ WQBELs & MOSF |
| | lbs/day ⁸ | 617 | -- | 1,234 | | | |
| Nitrate + Nitrite (as N) | mg/L | 7.2 | -- | -- | | | TMDL |
| | lbs/day ⁸ | -- | -- | -- | | | |
| Nitrate (as N) | mg/L | 7.2 | -- | -- | | | TMDL |
| | lbs/day ⁸ | -- | -- | -- | | | |
| Nitrite (as N) | mg/L | 0.9 | -- | -- | | | TMDL |
| | lbs/day ⁸ | -- | -- | -- | | | |
| Cadmium (wet-weather) | µg/L | 2.8 ⁹ | -- | 8.9 ⁹ | | | TMDL |
| | lbs/day ⁸ | 0.47 ¹⁰ | -- | 1.5 ¹⁰ | | | |
| Copper (all year round) | µg/L | 24 | -- | 34 | | | TMDL/ WQBELs/ BPJ |
| | lbs/day ⁸ | 4.0 ¹⁰ | -- | 5.7 ¹⁰ | | | |

¹⁹ The LA River Bacteria TMDL contains Waste Load Allocations (WLAs) for DC Tillman, Los Angeles-Glendale, and Burbank WRPs. WLAs are expressed as allowable exceedance days. The WLAs for LAGWRP is set equal to a 7-day median of 2.2 MPN/100 mL of E. coli or a daily max of 235 MPN/100mL to ensure zero (0) days of allowable exceedances. No exceedances of the geometric mean TMDL numeric target of 126/100 mL E.coli are permitted within the month.

| Parameter | Units | Effluent Limitations | | | | | Basis |
|-----------------------------------|------------------------------|----------------------|----------------|-----------------------|-----------------------|-----------------------|----------------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Instantaneous Minimum | Instantaneous Maximum | |
| Lead (all year round) | µg/L | 10 | -- | 18 | | | TMDL |
| | lbs/day ⁸ | 1.7 ¹⁰ | -- | 3.0 ¹⁰ | | | |
| Zinc (wet-weather) | µg/L | 241 ⁹ | -- | 295 ⁹ | | | TMDL |
| | lbs/day ⁸ | 40 ¹⁰ | -- | 49 ¹⁰ | | | |
| Cyanide | µg/L | 4.3 | -- | 8.5 | | | 303(d) list, BPJ |
| | lbs/day ⁸ | 0.72 | -- | 1.4 | | | |
| Bis(2-Ethylhexyl)Phthalate | µg/L | 4 | -- | -- | | | SIP/CTR |
| | lbs/day ⁸ | 0.67 | -- | -- | | | |
| Diazinon | µg/L | 0.04 | -- | 0.08 | | | USEPA NRWQC |
| | lbs/day ⁸ | 0.0067 | -- | 0.013 | | | |
| Dibenzo(a,h)Anthracene | µg/L | 0.049 | -- | 0.098 | | | SIP/CTR |
| | lbs/day ⁸ | 0.0082 | -- | 0.016 | | | |
| Dieldrin | µg/L | 0.00014 | -- | 0.00028 | | | SIP/CTR |
| | lbs/day ⁸ | 0.000023 | -- | 0.000047 | | | |
| Chronic Toxicity ^{11,12} | Pass or Fail, % Effect (TST) | Pass ¹³ | -- | Pass or % Effect < 50 | | | TST & USEPA Guidance |

E. Interim Effluent Limitations

No interim limits are included in this Order.

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications

The production, distribution, and reuse of recycled water for direct, non-potable applications are presently regulated under Water Recycling Requirements contained in Order No. R4-2007-0007 as amended by Order No. R4-2011-0035. The effluent is stored in a 2-million gallon storage tank located across Los Angeles River and Interstate 5 in Griffith Park. The Department of Water and Power for the City of Los Angeles and the Public Service Department for the City of Glendale are the agencies who distribute the recycled water. There are currently over 40 users of the recycled water produced by the Plant. Recycled water is used mainly for irrigation and it is also used in cooling towers at the Glendale Power Plant and for industrial and process at the Los Angeles-Glendale WRP.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order.

B. Groundwater

Limitations in this Order must protect not only surface receiving water beneficial uses, but also, the beneficial uses of underlying groundwater where there is a recharge beneficial use

of the surface water. In addition to a discharge to surface water, there is discharge that can impact groundwater. Sections of the Los Angeles River, near Los Angeles-Glendale WRP discharge points, are designated as GWR beneficial use. Surface water from the Los Angeles River percolates into the Central/West Coast Los Angeles Coastal Plain Groundwater Basins. Since groundwater from these Basins is used to provide drinking water to the community, the groundwater aquifers should be protected.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

Parts 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. Part 123.25(a)(12) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR part 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR part 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

B. Special Provisions

1. Reopener Provisions

- a. This provision is based on 40 CFR part 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

- a. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion.** In the event of any proposed plant expansion, this provision is based on the State Water Board Resolution No. 68-16, which requires the Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state. Prior to expanding the plant capacity, the Permittee must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Permittee to clarify that it has increased plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Permittee to report specific time schedules for the plants projects. Prior to any plant expansion, this provision requires the Permittee to submit the Antidegradation Analysis and Engineering Report for the proposed Plant Expansion to the Regional 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 a time period not to exceed 90 days in which the Permittee may adjust and test the treatment system(s). Prior to start-up of an expansion project, 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. **Treatment Plant Capacity.** The treatment plant capacity study required by section VI.C.2.d of this Order shall serve as an indicator for the Regional Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.

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

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

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

- a. This provision is based on the requirements of 40 CFR part 122.41(e) and the previous Order.

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

- a. **Biosolids Requirements.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Permittee to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Permittee is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality, or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.
- b. **Pretreatment Requirements.** This permit contains pretreatment requirements consistent with applicable effluent limitations, national standards of performance, and toxic and performance effluent standards established pursuant to sections 208(b), 301, 302, 303(d), 304, 306, 307, 403, 404, 405, and 501 of the CWA, and amendments thereto. This permit contains requirements for the implementation of an effective pretreatment program pursuant to section 307 of the CWA; 40 CFR 35 and 403; and/or Title 23, CCR section 2233.
- c. **Collection System.** The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (General Order) on May 2, 2006. The State Water Board amended the Monitoring and Reporting Program for the General Order through Order WQ 2013-0058-EXEC on August 6, 2013. The General Order requires public agencies that own or operate sanitary sewer systems with sewer lines one mile of pipe or greater to enroll for coverage and comply with the General Order. The General Order requires agencies to develop sanitary sewer management plans and report all sanitary sewer overflows, among other requirements and prohibitions.

The General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows that are more extensive, and therefore, more stringent than the requirements under federal standard provisions. The Discharger and public agencies that are discharging wastewater into the facility's collection system were required to obtain enrollment for regulation under the General Order by December 1, 2006.

6. **Other Special Provisions (Not Applicable)**

7. Compliance Schedules (Not Applicable)

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Influent monitoring is required:

1. To determine compliance with the permit conditions for BOD₅ 20°C and suspended solids removal rates.
2. To assess treatment plant performance.
3. To assess the effectiveness of the Pretreatment Program.
4. As a requirement of the PMP.

B. Effluent Monitoring

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

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

Table F-14. Effluent Monitoring Frequency Comparison

| Parameter | Monitoring Frequency (2011 Permit) | Monitoring Frequency (2017 Permit) |
|-------------------------|------------------------------------|------------------------------------|
| Total waste flow | continuous | no change |
| Total residual chlorine | -- | no change |
| Turbidity | continuous | no change |
| Temperature | daily | no change |
| pH | daily | no change |
| Settleable solids | daily | no change |

| Parameter | Monitoring Frequency (2011 Permit) | Monitoring Frequency (2017 Permit) |
|---------------------------------|------------------------------------|------------------------------------|
| Total suspended solids | daily | no change |
| Oil and grease | weekly | no change |
| BOD | weekly | no change |
| Total coliform | daily | no change |
| Fecal Coliform | daily | not required |
| E.coli | weekly (as necessary) | daily |
| Total Dissolved Solids | monthly | no change |
| Sulfate | monthly | no change |
| Chloride | monthly | no change |
| Boron | quarterly | no change |
| MBAS | monthly | no change |
| Ammonia nitrogen | monthly | no change |
| Nitrate + nitrite (as nitrogen) | monthly | no change |
| Nitrite nitrogen | monthly | no change |
| Nitrate nitrogen | monthly | no change |
| Chronic toxicity | monthly | no change |
| Acute toxicity | quarterly | not required |
| Organic Nitrogen | monthly | no change |
| Total Nitrogen | monthly | no change |
| Total Phosphorus | not required | monthly |
| Fluoride | quarterly | no change |
| Antimony | quarterly | no change |
| Arsenic | quarterly | no change |
| Beryllium | quarterly | no change |
| Cadmium | monthly | no change |
| Chromium III | quarterly | no change |
| Chromium VI | quarterly | no change |
| Copper | monthly | no change |
| Lead | monthly | no change |
| Mercury | monthly | quarterly |
| Nickel | quarterly | no change |
| Selenium | quarterly | no change |
| Silver | quarterly | no change |
| Thallium | quarterly | no change |
| Zinc | monthly | no change |
| Cyanide | monthly | no change |
| Bis(2-ethylhexyl)phthalate | monthly | no change |
| Dibenzo(a,h)Anthracene | monthly | no change |
| Dieldrin | semiannually | monthly |
| Diazinon | quarterly | monthly |
| 2,3,7,8-TCDD (Dioxin) | semiannually | no change |
| Pesticide | semiannually | no change |
| 2,4-D | semiannually | no change |
| 2,4,5-TP (Silvex) | semiannually | no change |
| Ammonium perchlorate | semiannually | no change |
| 1,4-Dioxane | semiannually | no change |
| 1,2,3-Trichloropropane | semiannually | no change |

| Parameter | Monitoring Frequency (2011 Permit) | Monitoring Frequency (2017 Permit) |
|---|------------------------------------|------------------------------------|
| Methyl-tert-butyl-ether (MTBE) | semiannually | no change |
| Remaining USEPA priority pollutant not listed on this Table | semiannually | no change |

C. Whole Effluent Toxicity Testing Requirements

WET protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. For this permit, chronic toxicity in the discharge is evaluated using USEPA’s 2010 Test of Significant Toxicity (TST) hypothesis testing approach, and is expressed as “Pass” or “Fail” for the median monthly summary results and “Pass” or “Fail” and “Percent Effect” for each individual chronic toxicity result. The chronic toxicity effluent limitations protect the narrative Basin Plan Water Quality Objective for chronic toxicity. The rationale for WET has been discussed extensively in section IV.C.5 of this Fact Sheet.

D. Receiving Water Monitoring

1. Surface Water

- a. Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Basin Plan. Flow monitoring is required at the Los Angeles River Wardlow station to determine the dry- and wet-weather condition of the receiving water.
- b. The proposed receiving water monitoring program will improve coordination and efficiency of receiving water monitoring for existing discharges in the Los Angeles River watershed by streamlining monitoring efforts and reducing redundancies throughout the watershed and will provide more useful water quality data on both watershed and site-specific scales.

2. Groundwater (Not Applicable)

E. Other Monitoring Requirements

1. Watershed Monitoring and Bioassessment Monitoring

The goals of the Watershed-wide Monitoring Program including the bioassessment monitoring for the Los Angeles River Watershed are to:

- a. Determine compliance with receiving water limits.
- b. Monitor trends in surface water quality.
- c. Ensure protection of beneficial uses.
- d. Provide data for modeling contaminants of concern.
- e. Characterize water quality including seasonal variation of surface waters within the watershed.
- f. Assess the health of the biological community.
- g. Determine mixing dynamics of effluent and receiving waters in the estuary.

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

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires all 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.

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

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

- A. Need to prevent nuisance: The state law requirements in this Order are required to prevent pollution or nuisance as defined in section 13050, subdivisions (l) and (m), of the CWC. Many are also required in accordance with narrative water quality objectives in the Basin Plan. These state requirements include, but are not limited to, groundwater limitations, spill prevention plans, operator certification, sanitary sewer overflow reporting, and requirements for standby or emergency power.
- B. Past, present, and probable future beneficial uses of water: Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region. Beneficial uses of water relevant to this Order are also identified above in Section III.C.1.
- C. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto: The environmental characteristics are discussed in the Region's Watershed Management Initiative Chapter, as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available water, will be improved by compliance with the requirements of this Order. Additional information on the San Gabriel River and Los Angeles River watersheds are available at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/.
- D. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area: The beneficial uses of the waterbodies in the

Los Angeles River watersheds can reasonably be achieved through the coordinate control of all factors that affect water quality in the area. TMDLs have been developed (as required by the Clean Water Act) for many of the impairments in the watershed. A number of Regional Water Board programs and actions are in place to address the water quality impairments in the watershed, including regulation of point source municipal and industrial discharges with appropriate NPDES permits and non-point source discharges such as irrigated agriculture. All of these regulatory programs control the discharge of pollutants to surface and ground waters to prevent nuisance and protect beneficial uses. These regulatory programs have resulted in watershed solutions and have improved water quality. Generally, improvements in the quality of the receiving waters impacted by the permittee's discharges can be achieved by reducing the volume of discharges to receiving waters (e.g., through increased recycling), reducing pollutant loads through source control/pollution prevention, including operational source control such as public education (e.g., disposal of pesticides, pharmaceuticals, and personal care products into the sewer) and product or materials elimination or substitution, and removing pollutants through treatment.

- E. Economic considerations:** The Permittee did not present any evidence regarding economic considerations related to this Order. However, the Regional Water Board has considered the economic impact of requiring certain provisions pursuant to state law. The additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan. Further, the loss of, or impacts to, beneficial uses would have a detrimental economic impact. Economic considerations related to costs of compliance are therefore not sufficient, in the Regional Water Board's determination, to justify failing to prevent nuisance and protect beneficial uses.
- F. Need for developing housing within the region:** The Regional Water Board has no evidence regarding the need for developing housing within the region or how the Permittee's discharge will affect that need. The Regional Water Board, however, does not anticipate that these state law requirements will adversely impact the need for housing in the area. The region generally relies on imported water to meet many of its water resource needs. Imported water makes up a vast majority of the region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining amount. This Order helps address the need for housing by controlling pollutants in discharges, which will improve the quality of local surface and ground water, as well as water available for recycling and re-use. This in turn may reduce the demand for imported water thereby increasing the region's capacity to support continued housing development. A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary. Therefore, the potential for developing housing in the area will be facilitated by improved water quality.
- G. Need to develop and use recycled water:** The State Water Board's Recycled Water Policy requires the Regional Water Boards to encourage the use of recycled water. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent. Most of the effluent to be discharged under this Order will be reused for beneficial purposes.

IX. PUBLIC PARTICIPATION

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

A. Notification of Interested Persons

The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following: (1) posted the notice at the Administration Building, front entrance of the Los Angeles-Glendale WRP, and (2) posted the notice on the bulletin board of the City of Glendale City Hall located at 613 E. Broadway, Glendale, 91206.

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

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Regional Water Board at losangeles@waterboards.ca.gov.

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on **February 6, 2017**.

C. Public Hearing

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

Date: March 2, 2017
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California, Board Room
700 North Alameda Street
Los Angeles, California

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

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 calendar days of the Regional Water Board's action:

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

For instructions on how to file a petition for review, see:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

E. Information and Copying

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

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Raul Medina at (213) 620-2160.

ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

Information and Data Acquisition

- A. Operations and performance review
 - 1. NPDES permit requirements
 - a. Effluent limitations
 - b. Special conditions
 - c. Monitoring data and compliance history
 - 2. POTW design criteria
 - a. Hydraulic loading capacities
 - b. Pollutant loading capacities
 - c. Biodegradation kinetics calculations/assumptions
 - 3. Influent and effluent conventional pollutant data
 - a. Biochemical oxygen demand (BOD₅)
 - b. Chemical oxygen demand (COD)
 - c. Suspended solids (SS)
 - d. Ammonia
 - e. Residual chlorine
 - f. pH
 - 4. Process control data
 - a. Primary sedimentation - hydraulic loading capacity and BOD and SS removal
 - b. Activated sludge - Food-to-microorganism (F/M) ratio, mean cell residence time (MCRT), mixed liquor suspended solids (MLSS), sludge yield, and BOD and COD removal
 - c. Secondary clarification - hydraulic and solids loading capacity, sludge volume index and sludge blanket depth
 - 5. Operations information
 - a. Operating logs
 - b. Standard operating procedures
 - c. Operations and maintenance practices
 - 6. Process sidestream characterization data
 - a. Sludge processing sidestreams
 - b. Tertiary filter backwash
 - c. Cooling water
 - 7. Combined sewer overflow (CSO) bypass data

- a. Frequency
 - b. Volume
8. Chemical coagulant usage for wastewater treatment and sludge processing
 - a. Polymer
 - b. Ferric chloride
 - c. Alum
- B.** POTW influent and effluent characterization data
 1. Toxicity
 2. Priority pollutants
 3. Hazardous pollutants
 4. SARA 313 pollutants,
 5. Other chemical-specific monitoring results
- C.** Sewage residuals (raw, digested, thickened and dewatered sludge and incinerator ash) characterization data
 1. EP toxicity
 2. Toxicity Characteristic Leaching Procedure (TCLP)
 3. Chemical analysis
- D.** Industrial waste survey (IWS)
 1. Information on IUs with categorical standards or local limits and other significant non-categorical IUs
 2. Number of IUs
 3. Discharge flow
 4. Standard Industrial Classification (SIC) code
 5. Wastewater flow
 - a. Types and concentrations of pollutants in the discharge
 - b. Products manufactured
 6. Description of pretreatment facilities and operating practices
 7. Annual pretreatment report
 8. Schematic of sewer collection system
 9. POTW monitoring data
 - a. Discharge characterization data
 - b. Spill prevention and control procedures
 - c. Hazardous waste generation
 10. IU self-monitoring data
 - a. Description of operations
 - b. Flow measurements

- c. Discharge characterization data
 - d. Notice of sludge loading
 - e. Compliance schedule (if out of compliance)
11. Technically based local limits compliance reports
 12. Waste hauler monitoring data manifests
 13. Evidence of POTW treatment interferences (i.e., biological process inhibition)

ATTACHMENT H – PRETREATMENT REPORTING REQUIREMENTS

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

A. Pretreatment Requirements

1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403, including any subsequent regulatory revisions to part 403. Where part 403 or subsequent revision places mandatory actions upon the Permittee as Control Authority but does not specify a timetable for completion of the actions, the Permittee shall complete the required actions within six months from the issuance date of this permit or the effective date of the part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines and other remedies by the USEPA or other appropriate parties, as provided in the Act. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the act.
2. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Permittee shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
3. The Permittee shall perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:
 - a. Implement the necessary legal authorities as provided in 40 CFR part 403.8(f)(1);
 - b. Enforce the pretreatment requirements under 40 CFR parts 403.5 and 403.6;
 - c. Implement the programmatic functions as provided in 40 CFR part 403.8(f)(2); and
 - d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR part 403.8(f)(3).
4. The Permittee shall submit annually a report to USEPA Pacific Southwest Region, and the State describing its pretreatment activities over the previous year. In the event the City is not in compliance with any conditions or requirements of this permit, then the City shall also include the reasons for noncompliance and state how and when the City shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on April 15 of each year. The report shall contain, but not be limited to, the following information:
 - a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the publicly-owned treatment works (POTW) influent and effluent for those pollutants USEPA has identified under section 307(a) of the Act which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. The City is not required to sample and

analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this permit. The City shall also provide any influent or effluent monitoring data for nonpriority pollutants which the City believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR part 136;

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

- h. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR part 403.8(f)(2)(viii).
- B. LOCAL LIMITS EVALUATION**
- 1. In accordance with 40 CFR part 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR part 403.5(c)(1) within 180 days of issuance or reissuance of the Hyperion Treatment Plant NPDES permit.
- C. SIGNATORY REQUIREMENTS AND REPORT SUBMITTAL**
- 1. Signatory Requirements.

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

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- 2. Report Submittal.

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

A copy of the Annual Pretreatment Report must be sent to USEPA electronically to the following address:

R9Pretreatment@epa.gov