CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

320 West 4th Street, Suite 200
(213) 576-6660 • Fax (213) 576-6640
http://www.waterboards.ca.gov

ORDER R4-2017-xxx
NPDES NO. CA0056227

WASTE DISCHARGE REQUIREMENTS FOR THE CITY OF LOS ANGELES, DONALD C. TILLMAN WATER RECLAMATION PLANT DISCHARGE TO THE LOS ANGELES RIVER VIA DISCHARGE OUTFALLS AND PONDS

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

Table 1. Permittee Information

Discharger/Permittee	City of Los Angeles
Name of Facility	Donald C. Tillman Water Reclamation Plant
Facility Address	6100 Woodley Avenue
	Van Nuys, CA 91406
	Los Angeles County

Table 2. Discharge Location

Discharge Point Nos.	Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Tertiary Treated Effluent	34.18028	-118.4794	Los Angeles River, directly and via Lake Balboa, Wildlife Lake, Hayvenhurst Channel, Haskell Channel and Bull Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board 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, Executive Officer

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I. FACILITY INFORMATION

Information describing the Donald C. Tillman Water Reclamation Plant (Tillman WRP or Facility or Plant) 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 Permittee 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. Notification of Interested Persons. The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

D. 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.

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 R4-2011-0196 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this Order. This action in no way prevents the 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 design capacity of 80 million gallons per day (MGD).

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(CWC).

F. The discharge of any substances in concentrations toxic to animal or plant 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 Permittee shall maintain compliance with the following effluent limitations at Discharge Point 001 with compliance measured at Monitoring Locations EFF-001A and EFF-001B as described in the Monitoring and Reporting Program (MRP), Attachment E.

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
Biochemical Oxygen Demand (BOD)5-day @ 20°C	mg/L	20	30	45	--	--
	lbs/day[1]	13,340	20,020	30,020	--	--
Total Suspended Solids (TSS)	mg/L	15	40	45	--	--
	lbs/day[1]	10,010	26,690	30,020	--	--
Turbidity	NTU	2 (as 24-hr Average)	--	5 NTUs more than 5% of the time (72 minutes) within 24-hr period	--	10
pH	standard units	--	--	--	6.5	8.5
Temperature	°F	--	--	86		

[1] The mass emission rates are based on the plant design flow rate of 80 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.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
Oil and Grease	mg/L	10	--	15	--	--
	lbs/day[1]	6,670	--	10,010	--	--
Radioactivity[2]						
Combined Radium-226 and Radium 228	pCi/L	5[2]	--	--	--	--
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15[2]	--	--	--	--
Uranium	pCi/L	20[2]	--	--	--	--
Gross Beta/photon emitters	millirem/year	4[2]	--	--	--	--
Strontium-90	pCi/L	8[2]	--	--	--	--
Tritium	pCi/L	20,000[2]	--	--	--	--
Total coliform[3]	MPN or CFU/100 mL	23[3]	2.2[3]	240[3]	--	--
E.coli[4]	MPN or CFU/100 mL	126[4]	2.2[4]	235[4]	--	--
Removal Efficiency for BOD and TSS	%	85	--	--	--	--
Settleable Solids	ml/L	0.1	--	0.3	--	--
Total Residual Chlorine	mg/L	--	--	0.1	--	--

[2] 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.

[3] 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.

[4] 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
Chloride	mg/L	190[5]	--	--	--	--
	lbs/day[1]	126,770	--	--	--	--
Total Dissolved Solids	mg/L	950	--	--	--	--
	lbs/day[1]	633,840	--	--	--	--
Sulfate	mg/L	300	--	--	--	--
	lbs/day[1]	200,160	--	--	--	--
Methylene Blue Activated Substance (MBAS)	mg/L	0.5[6]	--	--	--	--
	lbs/day[1]	330	--	--	--	--
Nitrate (as N)	mg/L	7.2[7]	--	--	--	--
Nitrite (as N)	mg/L	0.9[7]	--	--	--	--
Nitrate + Nitrite (as N)	mg/L	7.2[7]	--	--	--	--
Ammonia Nitrogen (as N)	mg/L	3[8]	--	5.6[8]	--	--
Cadmium (wet weather)[9 1011]	µg/L	2.1	--	6.9	--	--
	lbs/day[1]	1.4	--	4.6	--	--
Copper (year round)[9110 11]	µg/L	27	--	31	--	--
	lbs/day[1]	18		21		
Lead (year round)[9 10 11]	µg/L	5.3	--	10	--	--
	lbs/day[1]	3.5	--	6.7	--	--
Selenium	µg/L	2.2	--	5	--	--
	lbs/day[1]	1.5	--	3.3	--	--
Zinc (wet weather) [9 10 11]	µg/L	205	--	236	--	--
	lbs/day[1]	137	--	158	--	--
Cyanide	µg/L	4.3	--	8.5	--	--
	lbs/day[1]	2.9	--	5.7	--	--

[5] 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.
[6] Based on the secondary drinking water standard (DDW 1992)
[7] This is a final effluent limitation consistent with the waste load allocation (WLA), set forth in the *Los Angeles River Nitrogen Compounds and Related Effect TMDL,* Resolution No. R12-010 that became effective on August 7, 2014.
[8] This water quality based effluent limitation (WQBEL) incorporates a margin of safety reflective of plant performance in accordance with the *Los Angeles River Nitrogen Compounds and Related Effects TMDL*, Resolution No. R12-010 that became effective on August 7, 2014.
[9] Limits based on metal TMDL waste load allocation for concentration.
[10] This effluent limitation does not apply during dry-weather when the maximum daily flow measured at USGS Station 11087020 is less than 500 cubic feet per second.
[11] According to *LA River Metals TMDL*, 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 80 MGD.

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Minimum	Instan-taneous Maximum
Dibenzo(a,h)Anthracene	µg/L	0.024	--	0.049	--	--
	lbs/day[1]	.02	--	.03	--	--
Indeno(1,2,3-cd)pyrene	µg/L	0.024	--	0.049	--	--
	lbs/day[1]	.02	--	.03	--	--
Chronic Toxicity[12] [13]	Pass or Fail, % Effect (Test of Significant Toxicity, [TST])	Pass[14]	--	Pass or % Effect <50	--	--
Heptaclor	µg/L	.00011	--	.0002	--	--
	lbs/day[1]	.00007	--	.0001	--	--

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

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:

[12] 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."

[13] 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.

[14] This is a Median Monthly Effluent Limitation.

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 the discharge. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of the discharge. 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 discharge.

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 discharge.

5. The *Escherichia coli* (E. coli) concentration in the receiving water shall not exceed the following, as a result of the discharge:

   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 the discharge:

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

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

7. The waste discharge 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 waste discharge 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 discharge.

10. The waste discharge 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 waste discharge shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.
14. The waste discharge shall not alter the natural taste, odor, or color of fish, shellfish, or other surface water resources used for human consumption.
15. The waste discharge shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.
16. The waste discharge shall not result in visible floating particulates, foams, or oil and grease in the receiving waters.
17. The waste discharge 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 the wastes discharged.
    b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

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 water quality objectives, 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.

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 § 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(h)(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-5542 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report

z. Consistent with 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.), the Permittee shall investigate the feasibility of additional recycling, efforts to reduce the amount of treated effluent discharged via this NPDES Order. This study will also need to consider the necessity of a water rights CWC section 1211 application which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water body. The Permittee shall submit this feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

B. MONITORING AND REPORTING PROGRAM (MRP) REQUIREMENTS

The Permittee 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 will cause, have reasonable potential to cause, or contribute to adverse impacts on beneficial uses or degradation of the water quality of the receiving waters.

e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the 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, the adoption of a site specific objective, or the adoption or 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 for Ammonia as Nitrogen and/or Copper, to incorporate a revised margin of safety factor reflective of plant performance consistent with the applicable TMDLs, if the flow conditions or other extenuating circumstances cause a significant change in the water reclamation plant's treatment performance.

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 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 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 is 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 3.0 mg/L for DCTWRP, 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 discharge 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 the 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; and

v. An annual status report that shall be sent to the Regional Water Board including:

(1) All PMP monitoring results for the previous year;

(2) A list of potential sources of the reportable pollutant(s);

(3) A summary of all actions undertaken pursuant to the control strategy; and,

(4) 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 Facility 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 Only)**

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 this 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 2016, there were 47 CIU Permittees, 6 non-categorical SIU Permittees in the City's 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 § 403.18.

v. Applications for renewal or modification of this Order must contain information about industrial discharges to the POTW pursuant to 40 CFR § 122.21(j)(6). Pursuant to 40 CFR § 122.42(b) and provision VII. A of Attachment D, Standard Provisions, of this Order, the 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 § 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 § 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 Permittee shall submit to the Regional Board revised local limits, as necessary, for Regional Water Board approval based on the schedule specified in the NPDES Permit issued to the facility. 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 Permittee 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 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.

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 water body. 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 route of the spill including 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; and,

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 fresh waters, the Permittee shall monitor for E. coli density. For spills that reach marine waters, the Permittee shall monitor for total coliform, fecal coliform and enterococcus density. For spills that reach fresh or marine waters, the Permittee shall also monitor 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.anijielo@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:

(1) Agency, NPDES No., Order No., and MRP CI No., if applicable;

(2) The location, date, and time of the discharge;

(3) The water body that received the discharge;

(4) A description of the level of treatment of the sewage or other waste discharged;

(5) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;

(6) The OES control number and the date and time that notification of the incident was provided to OES; and,

(7) 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, may 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; and,

viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the 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 § 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 supersede 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 exceeds the MDEL for a given parameter, a potential violation will be flagged and the Permittee will be considered out of compliance for that parameter for that one day only within the reporting period. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

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. Monthly Median 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 toxicity as “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 and Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean Instream Waste Discharge Concentration (IWC) response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail.” The relative “Percent Effect” at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student’s t-Test), a statistical analysis comparing two sets of replicate observations—in the case of 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 unit 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:

Percent Removal (%) = [1-(CEffluent/CInfluent)] x 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.

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

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
1,2,3,7,8-PentaCDD	50	1.0
1,2,3,4,7,8-HexaCDD	50	0.1
1,2,3,6,7,8-HexaCDD	50	0.1
1,2,3,7,8,9-HexaCDD	50	0.1
1,2,3,4,6,7,8-HeptaCDD	50	0.01
OctaCDD	100	0.0001
2,3,7,8-TetraCDF	10	0.1
1,2,3,7,8-PentaCDF	50	0.05
2,3,4,7,8-PentaCDF	50	0.5
1,2,3,4,7,8-HexaCDF	50	0.1
1,2,3,6,7,8-HexaCDF	50	0.1
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

Congeners	MLs (pg/L)	TEFs
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:

Mass emission rate (lb/day) =

$$\frac{8.34}{N}\sum_{i=1}^{N} Q_i C_i$$

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:

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:

   Geometric Mean = (C1 x C2 x … x C3)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 *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 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:

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

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

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

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

Biosolids
Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state 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 U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

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

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

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

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

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

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

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

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

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 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.

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

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

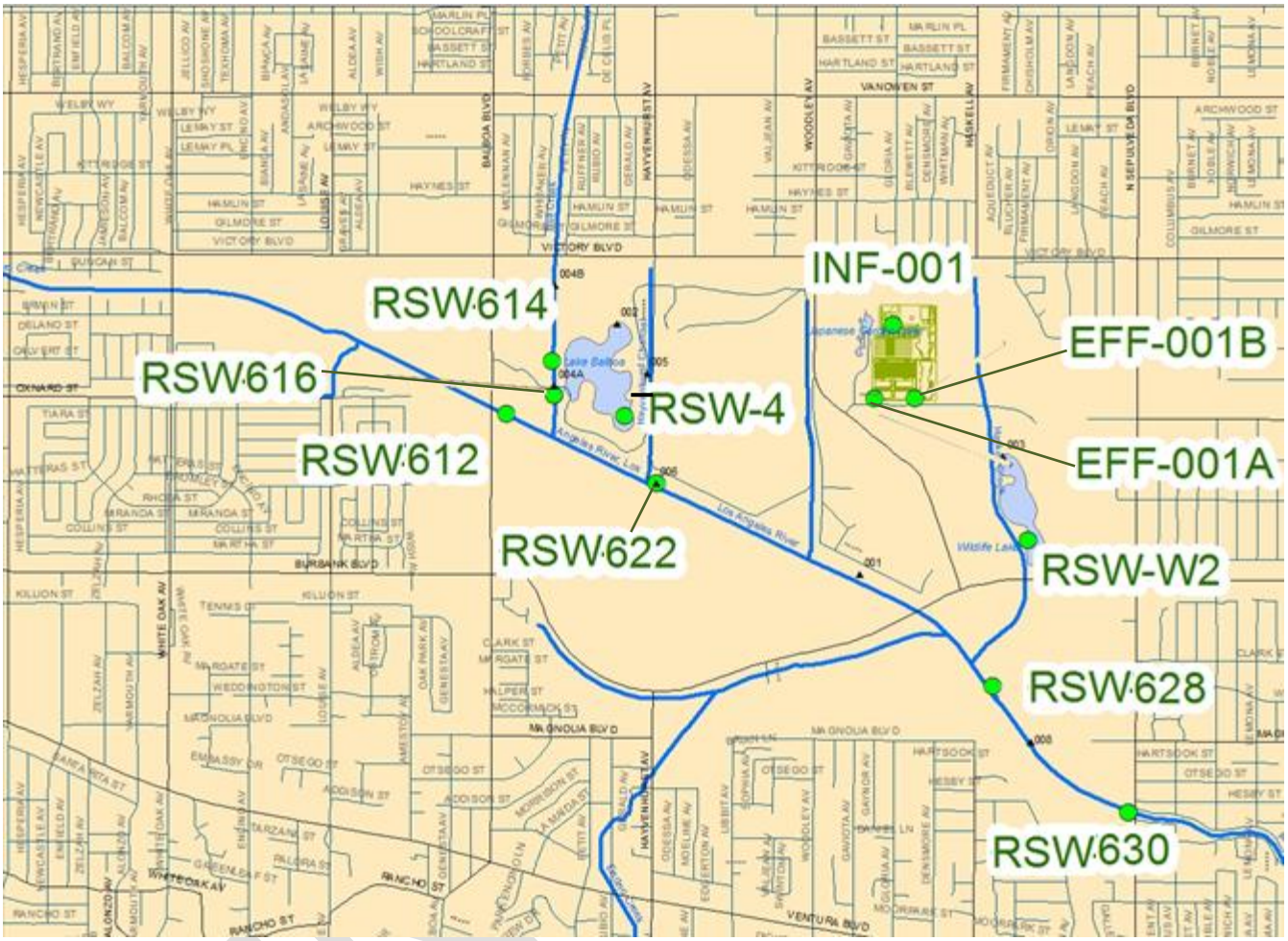
Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

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

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-1 MAP OF TILLMAN WRP INCLUDING EFFLUENT DISCHARGE AND RECEIVING WATER MONITORING LOCATIONS

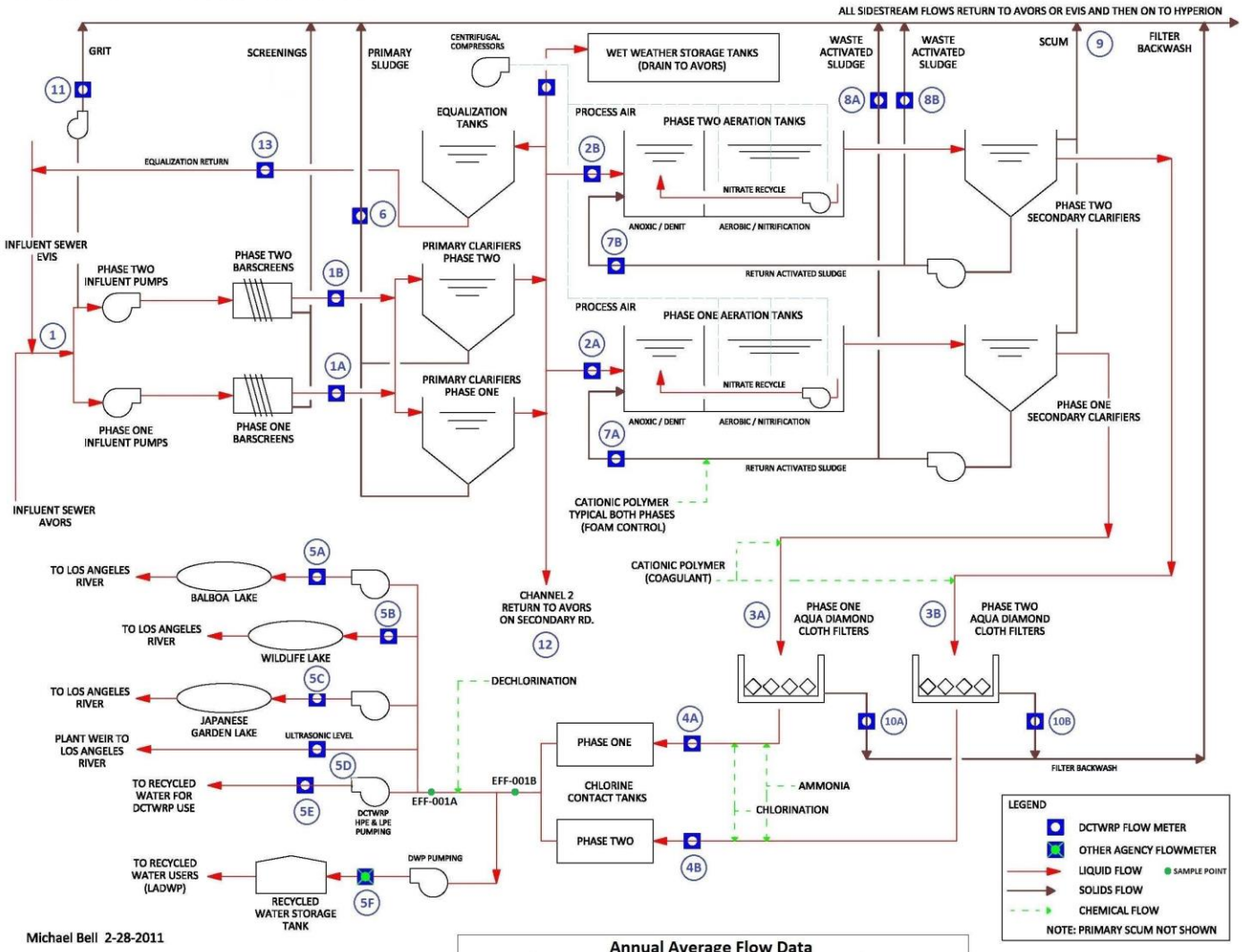


ATTACHMENT B-2 – AERIAL VIEW OF WRP AND SURROUNDING AREA

Figure 2-6
DCTWRP Discharge Flows

ATTACHMENT C TILLMAN PROCESS DIAGRAM

Donald C. Tillman Water Reclamation Plant



Michael Bell 2-28-2011

Annual Average Flow Data					
Point	Flow (MGD)	Point	Flow (MGD)	Point	Flow (MGD)
1	46.0	5C	4.1	8	0.7
2	34.7	5D	5.7	9	2.3
3	31.8	5E	2.7	10	0.3
4	31.5	5F	1.6	11	1.6
5A	13.6	6	1.6	12	14.2
5B	4.6	7	28.9	13	4.1

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 USC § 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 USC § 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 USC § 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 USC § 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 Permittee 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 Permittee 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 Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

   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.G.3 above. (40 CFR § 122.41(m)(4)(ii).)

4. Notice

   a. Anticipated bypass. If the Permittee 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 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Permittee 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 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127 (40 CFR § 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 Permittee. 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.H.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 Permittee 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 Permittee 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 Permittee 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 Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR § 122.41(n)(3)(iv).)

   e. **Burden of proof**. In any enforcement proceeding, the Permittee 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 Permittee 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 Permittee wishes to continue an activity regulated by this Order after the expiration date of this Order, the Permittee 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 Permittee 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 results must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR subchapters N or O. In the case of pollutants for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants. (40 CFR §§ 122.41(j)(4), 122.44(i)(1)(iv).)

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 CFR part 136 or required under 40 CFR 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 CFR part 136 or otherwise required under 40 CFR 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 CFR §§ 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 Permittee (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 Permittee shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Permittee shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA 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, and V.B.5 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 U.S. EPA). (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 U.S. EPA 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 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR § 122.22(e).)

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 or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR § 122.41(l)(4)(i).)

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

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

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 Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the

Permittee becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

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

As of December 21, 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 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Regional Water Board may also require the Permittee to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR § 122.41(l)(6)(ii)):

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

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

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(iii).)

F. Planned Changes

The Permittee 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 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 Permittee shall give advance notice to the Regional Water Board or State 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 Permittee 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 CFR part 127. The Regional Water Board may also require the Permittee to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7).)

I. Other Information

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board**,** State Water Board, or U.S. EPA, the Permittee 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 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. U.S. EPA will update and maintain this listing.
(40 CFR § 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 § 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 § 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 discharge 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

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP), CI-5695

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.D. 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 quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-12 of the MRP.

B. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 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 § 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 and 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 reported ML'.

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 J, below, the Discharger'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 Discharger'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 Discharger, 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 Permittee shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order. The locations of the monitoring stations are presented in Attachment B-1:

Table E-1. Monitoring Station Locations

Discharge Point Source	Monitoring Location Name	Monitoring Location Description
Influent Monitoring		
	INF-001	Sampling station is established at point of inflow to the sewage treatment plant and located upstream of any in-plant return flows, where representative samples of the influent can be obtained. **Latitude 34.183611, Longitude -118.479389**

Discharge Point Source	Monitoring Location Name	Monitoring Location Description
Effluent Monitoring		
001A	EFF-001A	The effluent sampling station for all constituents (except for bacteria) shall be located downstream of any in-plant return flows and after the final dechlorination process, where representative samples of the effluent can be obtained from Tillman WRP. **Latitude 34.18028, Longitude -118.4794**
001B	EFF-001B	The effluent sampling station for bacteria shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained from Donald C. Tillman WRP. **Latitude 34.18028, Longitude 118.478194**
Receiving Water Monitoring Stations[15]		
Upstream		
---	RSW 612 (I)	This sampling location is located in Los Angeles River, upstream of Bull Creek. **Latitude 34.17948, Longitude -118.50031**
---	RSW 616 (J)	This sampling location is located in Bull Creek, 100 ft. downstream of Lake Balboa weir outlet (Lake Balboa Storm Drain Nos. 1 and 2 outlets). **Latitude 34.18036, Longitude -118.49773**
---	RSW 614 (K)	This sampling location is located in Bull Creek, upstream of Lake Balboa discharge (250 feet upstream of Lake Balboa upper discharge, near the corner of Victory Blvd. and Petit Ave). **Latitude 34.186070, Longitude -118.49776**
---	RSW-4 (4)	This sampling location is located in Lake Balboa, 400 feet upstream from the outlet spillway. **Latitude 34.17941, Longitude -118.49391**
---	RSW-W2 (W-2)	This sampling location is located in the Wildlife Lake, south of the island, near the westerly lake shoreline at a 2 foot water depth **Latitude 34.17391, Longitude -118.47203**
Downstream		
---	RSW 622 (D)	This sampling location is located at 100 yards downstream of the confluence of the Los Angeles River and Hayvenhurst Channel. **Latitude 34.17576, Longitude -118.49099**
---	RSW 628 (W-E)	This sampling location is located in Los Angeles River, 300 ft downstream of the Haskell Flood Control Channel. **Latitude 34.16730, Longitude -118.4739**

[15] Receiving water stations are labeled as RSW here and most frequently in CIWQS, the State's monitoring and reporting data base. However, previous Orders and technical reports use the names in parentheses, or identify the sampling point as LATT. For example, RSW 616 is identified in Order R4-2011-0196 as J, in CIWQS as RSW 616 and as LATT-616 in previous figures.

Discharge Point Source	Monitoring Location Name	Monitoring Location Description
---	RSW 630	This samploing location is located in the Los Angeles River, 1800 feet downstream of RSW-628 and below Sepulveda Dam, **Latitude 34.16174, Longitutde -118.46653**
TMDL, Dry and Wet Weather Flow Monitoring Station		
Los Angeles River	RSW-003D	TMDL Wet-Weather Flow Monitoring Station is located at the County of Los Angeles Department of Public Works' Wardlow Gage Station No. F319-R, in the Los Angeles River, just below Wardlow River Road. **Latitude 34.81598, Longitude -118.20552**

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

Discharge Serial Numbers 001, 002, 003, 004, 005 and 008 were included in previous Orders, but are not listed here because the NPDES compliance points are EFF-001A and EFF-001B. These other outfall structures discharge after the effluent mingles with other surface waters. For example, sampling location RSW 616 is located in Bull Creek, 100 ft. downstream of the Lake Balboa weir outlet, which is also identified as Lake Balboa Storm Drain Nos. 1 and 2 outlets and Discharge Serial No. 004. Water that discharges through 004 has already resided in Lake Balboa.

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 Permittee shall monitor influent to the Facility at INF-001 as follows:

Table E-2. Influent Monitoring INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	recorder	continuous[16]	
pH	pH unit	grab	weekly	[17]
TSS	mg/L	24-hour composite	weekly	[17]
BOD_5 20°C	mg/L	24-hour composite	weekly	[17]
Ammonia nitrogen	mg/L	24-hour composite	quarterly	[17]

[16] Total daily flow, the 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).

[17] 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 by State Water Board. For any pollutant whose effluent limitation is lower than all the MLs specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Cadmium	µg/L	24-hour composite	quarterly	[17]
Copper	µg/L	24-hour composite	quarterly	[17]
Lead	µg/L	24-hour composite	quarterly	[17]
Selenium	µg/L	24-hour composite	quarterly	[17]
Zinc	µg/L	24-hour composite	quarterly	[17]
Cyanide	µg/L	grab	quarterly	[17]
Dibenzo(a,h)Anthracene	µg/L	24-hour composite	quarterly	[17]
Indeno(1,2,3-cd)pyrene	µg/L	24-hour composite	quarterly	[17]
Heptachlor	µg/L	24-hour composite	quarterly	[17]
PCBs as aroclors[18]	µg/L	24-hour composite	annually	[17]
PCBs as congeners[19]	pg/L	24-hour composite	annually	[17]
Remaining EPA priority pollutants[20] excluding asbestos and PCBs	µg/L	24-hour composite; grab for VOCs and chromium	semiannually	[17]

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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 analyses for toxic pollutants
5. Determine TMDL effectiveness in waste load allocation compliance.

[18] 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.

[19] 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.

[20] 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

The sampling location for the effluent discharge to the Los Angeles River is EFF-001A and is EFF-001B for the discharge to the recycled water pipelines.

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 CFR part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv). Both 40 CFR 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 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 and 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. Residual chlorine, pH, and temperature are monitored at EFF-001A and are required only when there is flow. Monitoring at EFF-001A is reportable to CIWQS if there is flow during the reporting month.

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

Table E-3. Effluent Monitoring EFF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total waste flow	mgd	recorder	continuous[21]	[17]
Turbidity	NTU	recorder	Continuous[21]	[17]
Total residual chlorine	mg/L	recorder	continuous [22]	[17]
Total residual chlorine	mg/L	grab	daily[23]	[17]
Total coliform	MPN/100mL or CFU/100 mL	grab	daily[24]	[17]
E. coli	MPN/100mL or CFU/100 mL	grab	daily[24]	[17]
Temperature[25]	°F	grab	daily[26]	[17]
pH	pH units	grab	daily[26]	[17]
Settleable solids	ml/L	grab	daily[26]	[17]
Total suspended solids	mg/L	24-hour comp.	daily[26]	[17]
$BOD_{5@20^oC}$ [27]	mg/L	24-hour comp.	weekly	[17]
Oil and grease	mg/L	grab	weekly	[17]
Dissolved oxygen	mg/L	grab	monthly	[17]
Total dissolved solids	mg/L	24-hour comp.	monthly	[17]
Chloride	mg/L	24-hour comp.	monthly	[17]
Sulfate	mg/L	24-hour comp.	monthly	[17]

[21] 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 can 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.

[22] Total residual chlorine (TRC) shall be continuously recorded. The recorded charts shall be maintained by the Permittee for at least five years. The Permittee shall extract the maximum daily peak, minimum daily peak, and average daily from the recorded media which shall be made available upon request of the Regional Water Board, reported on the monthly monitoring reports. The continuous monitoring data are not intended to be used for compliance determination purposes.

[23] 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.

[24] Daily grab samples for total coliform and E. coli shall be collected at monitoring location EFF-001B, Monday through Friday only, except for holiday;s.

[25] The Permittee has the option of collecting grab temperature samples on a daily basis or using a recorder to take continuous temperature readings.

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

[27] If any result of a weekly BOD analysis yields a value greater than the 30-day average limitation, 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 7-day and 30-day average BOD limitations is demonstrated; after which the frequency shall revert to weekly.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Fluoride	mg/L	24-hour comp.	quarterly	[17]
Total Trihalomethane[28]	µg/L	grab/calc sum	semiannually	[17]
Ammonia nitrogen	mg/L	24-hour comp.	monthly	[17]
Nitrate nitrogen	mg/L	24-hour comp.	monthly	[17]
Nitrite nitrogen	mg/L	24-hour comp.	monthly	[17]
Organic nitrogen	mg/L	24-hour comp.	monthly	[17]
Total nitrogen	mg/L	24-hour comp.	monthly	[17]
Surfactants (MBAS)	mg/L	24-hour comp.	monthly	[17]
Surfactants (CTAS)	mg/L	24-hour comp.	monthly	[17]
Total hardness ($CaCO_3$)	mg/L	24-hour comp.	monthly	[17]
Chronic toxicity[29]	Pass or Fail % Effect (TST)	24-hour comp.	monthly	[17]
Perchlorate[30]	µg/L	grab	semiannually	[17]
1,4-Dioxane[31]	µg/L	grab	semiannually	[17]
1,2,3-Trichloropropane[32]	µg/L	grab	semiannually	[17]
MTBE[33]	µg/L	grab	semiannually	[17]
Antimony	µg/L	24-hour comp.	quarterly	[17]
Arsenic	µg/L	24-hour comp.	quarterly	[17]
Beryllium	µg/L	24-hour comp.	quarterly	[17]
Cadmium	µg/L	24-hour comp.	monthly	[17]
Total Chromium	µg/L	grab	quarterly	[17]
Chromium III	µg/L	calculation	quarterly	[17]
Chromium VI	µg/L	grab	quarterly	[17]
Copper	µg/L	24-hour comp.	monthly	[17]
Lead	µg/L	24-hour comp.	monthly	[17]

[28] Total Trihalomethanes is the sum of concentrations of bromodichloromethane, bromoform, chloroform, and dibromochloromethane, and has a Basin Plan limit of 80 ug/L.

[29] 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."

[30] Perchlorate shall be analyzed using the USEPA 314 test method.

[31] 1,4-Dioxane shall be analyzed using the USEPA 8270M test method.

[32] 1,2,3-Trichloropropane shall be analyzed using the USEPA 504.1 or 8260B test method.

[33] Methyl tert-butyl ether (MTBE) shall be analyzed using USEPA test method 8260B.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Mercury	µg/L	24-hour comp.	quarterly	[17]
Nickel	µg/L	24-hour comp.	quarterly	[17]
Selenium	µg/L	24-hour comp.	monthly	[17]
Silver	µg/L	24-hour comp.	quarterly	[17]
Thallium	µg/L	24-hour comp.	quarterly	[17]
Zinc	µg/L	24-hour comp.	monthly	[17]
Cyanide	µg/L	grab	monthly	[17]
Dibenzo(a,h)Anthracene	µg/L	24-hour comp.	monthly	[17]
Indeno(1,2,3-cd)pyrene	µg/L	24-hour comp.	monthly	[17]
Bromoform	µg/L	24-hour comp.	semiannually	[17]
Chloroform	µg/L	24-hour comp.	semiannually	[17]
Dibromochloromethane	µg/L	24-hour comp.	semiannually	[17]
Dichlorobromomethane	µg/L	24-hour comp.	semiannually	[17]
Pentachlorophenol	µg/L	24-hour comp.	monthly	[17]
Benzo(ghi)Perylene	µg/L	24-hour comp.	monthly	[17]
Heptaclor	µg/L	24-hour comp.	monthly	[17]
2,3,7,8-TCDD (Dioxin)[34]	pg/L	24-hour comp.	semiannually	[17]
Diazinon	µg/L	24-hour comp.	quarterly	[17]
2,4-Dichlorophenoxyacetic acid (2,4-D)	µg/L	24-hour comp.	semiannually	[17]
2,4,5-TP (Silvex)	µg/L	24-hour comp.	semiannually	[17]
Pesticide[35]	µg/L	24-hour comp.	semiannually	[17]

[34] In accordance with the SIP, the Permittee 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 receiving water station RSW-628, located upstream of the Discharge Point. The Permittee 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., $TEQ_i = C_i \times TEF_i$). Compliance with the Dioxin limitation shall be determined by the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_i) = \sum_{1}^{17}(C_i)(TEF_i)$$

[35] Pesticides are, for purposes of this order, those six constituents referred to in 40 CFR part 125.58(p) (demeton, guthion, malathion, methoxychlor, mirex, and parathion).

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
PCBs as aroclors [36]	µg/L	24-hour composite	annually	[17]
PCBs as congeners [37]	pg/L	24-hour composite	annually	[17]
Remaining USEPA priority pollutants [6] excluding asbestos and PCBs	µg/L	24-hour composite/ grab for VOCs	semiannually	[17]
Radioactivity[38](Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	PCi/L	24-hour comp.	semiannually	[17]

5. 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 effluent sampling points 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.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

[36] 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.

[37] PCBs 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. 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.

[38] 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 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.

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 Fathead minnow, 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 Fathead minnow. 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 and Table A-1 and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations—in the case of 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 Limitation (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* (U.S. EPA 2002, EPA-821-R-02-013) (see Table E-4, below), then the Permittee must re-sample and re-test within 14 days.

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 the EC25[39]

f. The Permittee shall perform toxicity tests on final effluent samples. Chlorine in the final effluent sample may be removed prior to conducting toxicity tests in order to simulate the dechlorination process at the facility. However, ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rational is explained in the Fact Sheet (Attachment F).

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

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Fathead Minnow, *Pimephales promelas*, 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)
Daphnid, *Ceriodaphnia dubia*, 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, *Selenastrum capricornutum*, Growth Toxicity Test Method 1003.0 (Table 3 of the test method, above).	Mean cell density of at least 1 X 10^6 cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

6. Preparation of an Initial Investigation TRE Work Plan

The Permittee shall prepare and submit a copy of the Permittee's initial investigation TRE work plan to the Executive Officer of the 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; and,

c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

[39] 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.

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. When there is discharge of 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 48 hours 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 the discharge 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. Toxicity Reduction Evaluation (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); *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 is 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, and shall include:

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 the Monitoring and Reporting Program.

b. Summary 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 and 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 written request from the Regional Water Board Chief Deputy Executive Officer or 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

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. Surface Water

1. Monitoring Location - RSW-630

   The following analyses, shall be conducted on grab samples obtained at Station RSW630, which is located in the Los Angeles River downstream of all Tillman discharges. Samples shall be taken at one-foot depth.

Table E-5. Receiving Water Monitoring Requirements at RSW 630.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total flow	MGD	estimate	weekly	[17]
pH	pH units	grab	weekly	[17]
Temperature	°F	grab	weekly	[17]
Dissolved oxygen	mg/L	grab	weekly	[17]
Total residual chlorine	mg/L	grab	weekly	[17]
E.coli	MPN/100 ml	grab	weekly	[17]
Turbidity	NTU	grab	quarterly	[17]
Total dissolved solids	mg/L	grab	quarterly	[17]
Chloride	mg/L	grab	quarterly	[17]
Conductivity	µmhos/cm	grab	quarterly	[17]
Sulfates	mg/L	grab	quarterly	[17]
Total Trihalomethane	µg/L	grab/calc sum	quarterly	[17]
Ammonia nitrogen	mg/L	grab	weekly[40]	[17]
Nitrate nitrogen	mg/L	grab	weekly[40]	[17]
Nitrite nitrogen	mg/L	grab	weekly[40]	[17]
Organic nitrogen	mg/L	grab	monthly	[17]
Total kjeldahl nitrogen	mg/L	grab	weekly	[17]
Total nitrogen	mg/L	grab	weekly	[17]
Total phosphorus	mg/L	grab	quarterly	[17]
Orthophosphate-P	mg/L	grab	quarterly	[17]
Surfactants (MBAS)	mg/L	grab	quarterly	[17]
Surfactants (CTAS)	mg/L	grab	quarterly	[17]
$BOD_{5@20^{o}C}$	mg/L	grab	quarterly	[17]
Total organic carbon	mg/L	grab	quarterly	[17]
Oil and grease	mg/L	grab	monthly	[17]

[40] Regional Water Board Resolution No. 12-010, *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[41]	Pass/Fail /% Effect (TST)	grab	quarterly	[17]
Boron	mg/L	grab	semiannually	[17]
Fluoride	mg/L	grab	semiannually	[17]
Chemical oxygen demand	mg/L	grab	quarterly	[17]
Settleable solids	ml/L	grab	quarterly	[17]
Total suspended solids	mg/L	grab	quarterly	[17]
Total hardness ($CaCO_3$)	mg/L	grab	quarterly	[17]
MTBE	µg/L	grab	semiannually	[17]
Perchlorate	µg/L	grab	semiannually	[17]
1,4-Dioxane	µg/L	grab	semiannually	[17]
1,2,3-Trichloropropane	µg/L	grab	semiannually	[17]
Cadmium	µg/L	grab	monthly[42]	[17]
Copper	µg/L	grab	monthly[42]	[17]
Lead	µg/L	grab	monthly[42]	[17]
Mercury[43]	µg/L	grab	monthly	[17]
Selenium	µg/L	grab	monthly	[17]
Zinc	µg/L	grab	monthly[42]	[17]
Cyanide	µg/L	grab	monthly	[17]
Diazinon	µg/L	grab	quarterly	[17]
2,4-Dichlorophenoxyacetic acid	µg/L	grab	semiannually	[17]
2,4,5-TP (Silvex)	µg/L	grab	semiannually	[17]

[41] 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.

[42] TMDL requires monthly monitoring

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

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Pesticide[22]	µg/L	grab	semiannually	[17]
PCBs[23 24]	µg/L	grab	annually	[17]
Remaining USEPA priority pollutants excluding asbestos and PCBs	µg/L	grab	semiannually	[17]

2. Monitoring Locations - RSW-622, RSW-612, RSW-616, RSW-614, and RSW-628

The receiving water monitoring program for the Recreation Lake (Lake Balboa) and the Wildlife Lake shall be conducted on grab samples obtained at Stations RSW622, RSW612, RSW- LATT616, RSW614, and RSW628. Samples shall be taken at one-foot depth.

Table E-6.Lake Balboa and Wildlife Lake Receiving Water Monitoring Requirements at RSW 612, 614,616, 622 and 628

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total flow	cfs	estimate	weekly	[17]
pH	pH units	grab	weekly	[17]
Temperature	°F	grab	weekly	[17]
Dissolved oxygen	mg/L	grab	weekly	[17]
Total residual chlorine	mg/L	grab	weekly	[17]
E.coli	MPN/100 ml	grab	weekly	[17]
Turbidity	NTU	grab	quarterly	[17]
$BOD_{5@20^{o}C}$	mg/L	grab	quarterly	[17]
Total dissolved solids	mg/L	grab	quarterly	[17]
Conductivity	µmhos/cm	grab	quarterly	[17]
Chloride	mg/L	grab	quarterly	[17]
Ammonia nitrogen	mg/L	grab	weekly	[17]
Nitrate nitrogen	mg/L	grab	weekly	[17]
Nitrite nitrogen	mg/L	grab	weekly	[17]
Organic nitrogen	mg/L	grab	monthly	[17]
Total kjeldahl nitrogen	mg/L	grab	monthly	[17]
Total nitrogen	mg/L	grab	monthly	[17]
Total phosphorus	mg/L	grab	quarterly	[17]
Orthophosphate-P	mg/L	grab	quarterly	[17]
Surfactants (MBAS)	mg/L	grab	quarterly	[17]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Surfactants (CTAS)	mg/L	grab	semiannually	[17]
Chemical oxygen demand	mg/L	grab	semiannually	[17]
Oil and grease	mg/L	grab	monthly	[17]
Settleable solids	ml/L	grab	quarterly	[17]
Total suspended solids	mg/L	grab	quarterly	[17]
Total hardness ($CaCO_3$)	mg/L	grab	quarterly	[17]
Chronic toxicity[41]	Pass/Fail/% Effect (TST)	grab	quarterly	[17]
Perchlorate	µg/L	grab	semiannually	[17]
1,4-Dioxane	µg/L	grab	semiannually	[17]
1,2,3-Trichloropropane	µg/L	grab	semiannually	[17]
MTBE	µg/L	grab	semiannually	[17]
Cadmium	µg/L	grab	quarterly	[17]
Copper	µg/L	grab	quarterly	[17]
Lead	µg/L	grab	quarterly	[17]
Mercury	µg/L	grab	quarterly	[17]
Selenium	µg/L	grab	monthly	[17]
Zinc	µg/L	grab	quarterly	[17]
Cyanide	µg/L	grab	monthly	[17]
Diazinon	µg/L	grab	quarterly	[17]
2,4-D	µg/L	grab	semiannually	[17]
2,4,5-TP (Silvex)	µg/L	grab	semiannually	[17]
Pesticide	µg/L	grab	semiannually	[17]
PCBs	µg/L	grab	annually	[17]
Remaining USEPA priority pollutants excluding asbestos and PCBs	µg/L	grab	semiannually	[17]

3. Monitoring Locations – RSW-4 and RSW-W2

   Grab samples shall be collected at discharges from Lake Balboa and Wildlife Lake at Station Nos. RSW-4 and RSW-W2, respectively. Samples shall be taken from one-foot depth:

Table E-7. Lake Balboa and Wildlife Lake Water Monitoring Requirements.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	pH units	grab	weekly	[17]
Temperature	°F	grab	weekly	[17]
Dissolved oxygen	mg/L	grab	weekly	[17]
Total Dissolved Solids	mg/L	grab	quarterly	[17]
Chloride	mg/L	grab	quarterly	[17]
Total nitrogen	mg/L	grab	weekly	[17]
Total kjeldahl nitrogen	mg/L	grab	weekly	[17]
Ammonia nitrogen	mg/L	grab	weekly	[17]
Organic nitrogen	mg/L	grab	weekly	[17]
Nitrate nitrogen	mg/L	grab	weekly	[17]
Nitrite nitrogen	mg/L	grab	weekly	[17]
Total phosphorus	mg/L	grab	seasonally[44]	[17]
Organic phosphorus	mg/L	grab	seasonally[44]	[17]
Condensed phosphorus	mg/L	grab	seasonally[44]	[17]
Orthophosphorus	mg/L	grab	seasonally[44]	[17]

4. Monitoring Location – RSW-4

The following analyses for Lake Balboa, shall be conducted on grab samples obtained at Station No. RSW-4. Sample shall be taken at one-foot depth.

Table E-8. Lake Balboa Monitoring Requirements.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
E.coli	MPN/100 ml	grab	monthly	[17]
Suspended solid	mg/L	grab	monthly	[17]
Conductivity	μmhos/cm	grab	monthly	[17]

[44] This chemical shall be analyzed monthly during the quiescent months of December to May and weekly during the biologically productive months of June to November.

5. 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.

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 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 RSW-630, downstream of Sepulveda Basin. 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.

C. Sediment

1. Monitoring Location – RSW-4 and RSW-W2

Representative sediment/bottom samples shall be collected at Lake Balboa Station No. RSW-4 and Wildlfie Lake Station No. RSW-W2.

Table E-9. Sediment Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Method and ML
Total organic nitrogen	mg/Kg	grab	quarterly	[17]
Total organic carbon	mg/Kg	grab	quarterly	[17]
Sediment grain size distribution	weight % vs. grain size in phi units	grab	quarterly	[17]
Cadmium	mg /Kg	grab	quarterly	[17]
Copper	mg /Kg	grab	quarterly	[17]
Lead	mg /Kg	grab	quarterly	[17]
Mercury	mg /Kg	grab	quarterly	[17]
Selenium	mg /Kg	grab	quarterly	[17]
Zinc	mg /Kg	grab	quarterly	[17]
Cyanide	mg /Kg	grab	quarterly	[17]
Diazinon	μg/Kg	grab	quarterly	[17]
Pesticide	μg/Kg	grab	semiannually	[17]
PCBs	μg/Kg	grab	annually	[17]
Remaining USEPA priority pollutants excluding asbestos and PCBs	mg/Kg for metals, BNAs, and VOCs; μg/Kg for pesticides and PCBs	grab	semiannually	[17]

D. Bioassessment Monitoring Program

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 Permittee 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.

The Permittee 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.

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 Permittee or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.

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 Permittee 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.

E. Los Angeles River Wardlow Station Stream Flow Monitoring

1. The Permittee shall report the maximum daily flow at the Los Angeles River at TMDL Wet-Weather Flow Monitoring Station (34.81598, 118.20552 which is located at the County of Los Angeles Department of Public Works' Wardlow Gage Station No. F319-R, in the Los Angeles River, just below Wardlow River Road. This information is necessary to determine the wet-weather condition of the river as defined by the *Total Maximum Daily Loads for Metals for the Los Angeles River and Impaired Tributaries* as promulgated by USEPA Region IX on December 15, 2011(*Los Angeles River Metals TMDL*). If the gauging station is not operational, an estimated maximum daily flow may be submitted.

Table E-10. TMDL Stream Flow Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Maximum Daily Flow	cubic feet per second (cfs)	recorder	daily	N/A

IX. OTHER MONITORING REQUIREMENTS

A. Los Angeles River Program (LARWMP)

1. Pursuant to the 40 CFR section 122.41(j) and section 122.48(b), the monitoring program for a Permittee 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 Los Angeles River Watershed MonitoringProgram (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 Permittee 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 Permittee shall monitor the effluent for BOD, suspended solids, and settleable solids, on daily basis, until it is demonstrated that the filter “bypass” has not caused an adverse impact on the receiving water.

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

   Date and time of bypass start and end;

   Total duration time; and,

   Estimated total volume bypassed

3. The Permittee shall notify Regional Water Board staff by telephone within 24 hours of the filter bypass event.

4. The Permittee 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 B.1. above, shall be verbally reported to the Regional Water Board as the results become available and submitted as part of the monthly SMR.

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 Permittee 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 Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. The Permittee 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-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
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	1st day of calendar month through last day of calendar month	By the 15th day of the third month after the month of sampling
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 Permittee 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 Permittee shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

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

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

d. Permittees 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 Permittee 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. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, 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).

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

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

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

7. The Permittee shall submit SMRs in accordance with the following requirements:

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

   b. The Permittee 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)

DMRs are USEPA reporting requirements. The Permittee 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 Permittee shall report the results of any special studies, chronic toxicity testing, TRE/TIE, Pollutant Minimization Program (PMP), and Pollution Prevention Plan required

by Special Provisions – section 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. 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 California Toxics Rule (CTR) criteria that was exceeded for each given pollutant;

   c. The concentration of the pollutant(s);

   d. The test method used to analyze the sample; and,

   e. The date and time of sample collection.

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 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

CONTENTS

TABLES

6.

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 Permittees in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Permittee. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Permittee.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B190106004
Discharger/Permittee	City of Los Angeles
Name of Facility	Donald C. Tillman Water Reclamation Plant
Facility Address	6100 Woodley Avenue, Van Nuys, CA 91406
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 9th Floor, Los Angeles, CA 90015
Billing Address	1149 S. Broadway Street, 9th Floor, Los Angeles, CA 90015-2213
Type of Facility	Publicly-Owned Treatment Works
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Reclamation Requirements	Producer
Facility Permitted Flow	80 Million Gallons per Day
Facility Design Flow	80 Million Gallons per Day
Watershed	Los Angeles River
Receiving Water	Los Angeles River
Receiving Water Type	Inland surface water

A. The City's Department of Public Works, Bureau of Sanitation, (hereinafter Discharger or Permittee) is the owner and operator of the Donald C. Tillman Water Reclamation Plant, a Publicly-Owned Treatment Works (POTW). For the purposes of this Order, references to the "City", "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Permittee herein.

B. The Facility discharges tertiary-treated wastewater to Los Angeles River, water of the United States, and is currently regulated by Order Nos. R4-2011-0196, which was adopted by this Regional Water Board on December 8, 2011 and expired on November 10, 2016. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit are adopted pursuant to this Order. Attachment B provides maps of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on May 9, 2016. Supplemental information was requested on June 8, 2016, and received on July 1, 2016. A site visit was conducted on October 11, 2016, to observe operations and collect additional data to confirm permit limitations and conditions. The application was deemed complete on July 12, 2016, so the NPDES permit was administratively extended.

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 Permittee 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 Tillman WRP is located at 6100 Woodley Avenue, Van Nuys, California. The City of Los Angeles (hereinafter City or Discharger) is currently discharging pursuant to Order No. R4-2011-0196 and National Pollutant Discharge Elimination System (hereinafter NPDES) Permit No. CA0056227 and previously by Order Nos. R4-2006-0091 and R4-2010-0060. Attachment B contains maps of the Tillman WRP and vicinity. The Tillman WRP consists of two identical treatment trains, each with a dry weather average design capacity of 40 million gallons per day (MGD), for a total 80 MGD. In 2015, the average treated tertiary-treated municipal wastewater was approximately 46.1 MGD. The influent wastewater is a mixture of domestic and industrial wastewater that is treated pursuant to title 40, Code of Federal Regulations (CFR), part 403.

   The Tillman WRP is part of the City's integrated network of facilities, known as the Hyperion Service Area (HSA, 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 Tillman WRP treatment process are returned untreated to the Additional Valley Outfall sewer (AVORS) for downstream treatment at the Hyperion Wastewater Treatment Plant.

The City maintains and operates the Hyperion Treatment System, which collects, treats, and processes municipal wastewater from domestic, commercial, and industrial sources from the entire City (except the Terminal Island Service Area surrounding the Los Angeles Harbor area) and from a number of other cities and agencies under contractual agreements, including the communities of Chatsworth, Granada Hills, Mission Hills, Northridge, Pacoima, Tarzana, Van Nuys, Sylmar, Woodland Hills, Canoga Park; the City of San Fernando; the Las Virgenes Municipal Water District; Veterans Memorial Park; and the Triunfo Canyon Sanitation District. Sewage enters the Tillman WRP via both the Additional Valley Outfall Relief Sewer (AVORS) and the East Valley Interceptor Sewer (EVIS). There are approximately 4 million people living in the Hyperion Service Area with approximately 1.1 million people in the San Fernando Valley, which is served by the Tillman WRP.

In case of Tillman WRP operational problems or a need for the Tillman WRP shutdown, wastewater can be diverted back to the AVORS for treatment at the Hyperion Treatment Plant.

2. The treatment system at the Tillman WRP currently consists of grit removal, screening, flow equalization, primary sedimentation, nitrification and denitrification (NDN) activated sludge biological treatment with fine pore aeration, secondary clarification, coagulation, aqua diamond cloth filtration, disinfection by chlorination with the addition of ammonium hydroxide, and dechlorination. No facilities are provided for solids processing at the Tillman WRP. Solids from the Facility are returned to the collection system for processing at the Hyperion Treatment Plant. Solids returned to the sewer consist of grit, primary and secondary sludge and skimmings, and filter backwash (approximately 10 MGD). Attachment C includes a process flow diagram.

   In order to achieve compliance with the ammonia water quality objectives (WQOs) specified in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), the City installed a nitrogen de-nitrification process (NDN), the Enhanced Modified Ludzack-Ettinger (eMLE) Process, in September 2007.

   The process steps of the treatment facility are described below:

   a. Grit removal – Grit removal extracts sand and silt to prevent wear on pumps; accumulations in aeration tanks, clarifiers.

   b. Screen – Screens are used in the wastewater treatment plant to remove coarse solids, such as wood, plastic materials, and rags.

   c. Flow equalization – Although flow equalization is not a component of the Tillman WRP, some of the basins of the second treatment train are currently being used to equalize the flow throughout the day to improve treatment operations. In addition to dampening the daily variation in the flow rate, the flow equalization also dampens the variation in the concentration of effluent five-day biochemical oxygen demand at $20^{o}C$ ($BOD5@20^{o}C$), total suspended solids (TSS), and nitrogen compounds, through the day.

   d. Primary sedimentation – The main objective of primary sedimentation is to remove solids from the wastewater by gravity. The heavier solids (settleable solids)settle and are removed from the primary sedimentation basin. The lighter solids float to the top and are skimmed off. However, some solids remain in suspension.

e. Nitrification/denitrification (NDN) activated sludge biological treatment – Air is generated from six compressors and delivered to the aeration basin to provide oxygen for the nitrification process. Activated sludge converts non-settleable and dissolved organic contaminants into biological floc, which can then be removed from the wastewater for further treatment.

f. Secondary sedimentation with coagulation – The main objective of secondary sedimentation is to remove biological floc from the wastewater. Chemicals, such as aluminum sulfate (alum) and polymer, may be added as part of the treatment process to enhance solids removal. Alum causes the biological floc to combine into larger clumps (coagulate), thus making them easier to remove.

g. Aqua diamond cloth filtration – The filtration process is used to remove or reduce suspended or colloidal matter by passing the liquid stream through cloth media. Cloth media is completely submerged during filtration. Solids are deposited on the outside of the cloth as the wastewater flows through.

h. Chlorination – Sodium hypochlorite and ammonium hydroxide are used as disinfectants at the Tillman WRP. Ammonium hydroxide reacts with sodium hypochlorite to form chloramine. This disinfection process reduces the formation of trihalomethanes and cyanide. Disinfectant is added into the effluent of aqua diamond cloth filtration (prior to the chlorine contact basin) in order to destroy bacteria, pathogens and viruses.

i. Dechlorination – Sodium bisulfate is added to neutralize the chlorine prior to the discharge of treated water to the Los Angeles River.

B. Discharge Points and Receiving Waters

1. The Tillman WRP is located within the Sepulveda Dam Basin. The 100-year flood water surface elevation in the "U.S. Corps of Engineers Modified Spillway Gate Operating Plan" for the Sepulveda Dam Basin is 714.4 feet. The City's Department of Public Works completed construction of a berm surrounding the Tillman WRP in 1994 to a finished elevation of 715 feet. The berm and outfall structure 008 were constructed downstream of the berm to protect the Tillman WRP from flood conditions within the Sepulveda Flood Control Basin. The Tillman WRP discharges tertiary-treated wastewater via Wildlife Lake, Lake Balboa, Bull Creek, Hayvenhurst Channel, and Haskell Channel, to the Los Angeles River above the Estuary. The receiving water is located within the Los Angeles River Watershed. Existing points of discharge (see Attachment B) are located within Los Angeles River Reach 5 Sepulveda Basin and Reach 4 below Sepulveda Basin and are given below.

   a. **Discharge Point EFF-001** (Discharge to Los Angeles River via Wildlife Lake, Lake Balboa, Japanese Gardens, Bull Creek, Hayvenhurst Channel and Haskell Channel.)The facility is designed to discharge up to 80 million gallons per day through this discharge point and additional outfall structures into receiving waters within the Sepulveda Basin.

2. The City is currently using treated effluent to maintain the waterways and ponds of the Sepulveda Basin, including the Japanese Garden, Lake Balboa, and Wildlife Lake. The Wildlife Lake and Lake Balboa are operated and maintained by the City's Department of Recreation and Parks. The Department of Recreation and Parks has developed

management plans for these lakes, which include measures to be implemented during operation, maintenance, and monitoring.

a. **Outfall Structures within Sepulveda Basin**

After monitoring at EFF-001A, the effluent moves into a weir which distributes the effluent into different outfall structures within the Sepulveda Basin. These structures manage the movement of water through the basin. In previous Orders, the outfall structures were identified as Discharge Points, but NPDES effluent monitoring does not take place at these locations and surface waters may mingle with the effluent above these outfall structures shown in Attachment B.

i. **Outfall Structure 001 (to Los Angeles River).** This outfall structure allows effluent to move into the Los Angeles River. It was not used during the previous Order's term.

ii. **Outfall Structure 002** (to Los Angeles River via Lake Balboa, Bull Creek, and Hayvenhurst Channel.) The treated effluent is discharged from the Tillman WRP to Lake Balboa located southeast of the corner of Victory and Balboa Boulevards, Los Angeles (Outfall Structure 002). The treated effluent flows through the lake and eventually discharges through weirs, spillways and a bottom drain at Bull Creek (previously labeled as discharge points 004A and 004B), Hayvenhurst Channel (previously labeled as discharge point 005), and the Los Angeles River (previously labeled as Discharge Point 006). Bull Creek and Hayvenhurst Channel are tributaries to the Los Angeles River above the Estuary.

iii. **Outfall Structure 003** (to Los Angeles River via Wildlife Lake, Haskell Channel.) The Department of Recreation and Parks receives treated effluent to refill Wildlife Lake. The water flows by gravity to the lake located northeast of Burbank Boulevard and Woodley Avenue (Outfall Structure 003). The treated effluent flows through the 10-acre Wildlife Lake and is discharged to the Haskell Flood Control Channel (Outfall Structure 007), thence to the Los Angeles River, above the Estuary.

During the summer months, Wildlife Lake may be drained (for maintenance and to minimize nuisance resulting from mosquito breeding), resulting in an increased discharge of treated effluent to Haskell Flood Control Channel.

iv. **Outfall Structure 008** (Discharge to Los Angeles River.) The Tillman WRP discharges tertiary-treated effluent to the upper Los Angeles River, at Outfall Structure 008, which was constructed in 1993 to replace Outfall Structure 001. The structure is located 878 feet downstream of the Sepulveda Dam Spillway.

3. During dry weather (May 1 – October 31), the primary sources of water flow in Los Angeles River downstream of the Discharge Points are the Tillman WRP, the Burbank WRP, 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 MS4 are regulated under an NPDES permit, *Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles, Los Angeles Municipal Permit,* NPDES Permit No. CAS004001.

4. 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 within the Sepulveda Basin and further downstream at 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 and springs which 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.

5. The Los Angeles River Watershed is one of the largest in the Los Angeles Region. It is also has some of the most diverse land use patterns. Approximately 324 square miles of the watershed are covered by forest or open space land including the area near the headwaters which lie 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.

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

1. Effluent limitations contained in the existing Order for discharges from Effluent Transfer Stations EFF-001A and EFF-001B and representative monitoring data from the term of the previous Order are as follows;

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

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
$BOD_5 20^oC$	mg/L	20	30	45	4	10.5	55
Total Suspended Solids (TSS)	mg/L	15	40	45	11	12	26
Oil and Grease	mg/L	10	--	15	4.1	--	6.2
Settleable Solids	ml/L	0.1	--	0.3	<0.1	--	0.5
Residual Chlorine	mg/L	--	--	0.1	.01	--	0.414
Total Dissolved Solids	mg/L	950	--	--	684	--	684

[1] These monitoring data include estimated concentrations, which are less than reporting level, but greater than or equal to the respective laboratory MDL's.
[2] The highest average weekly discharge concentration is reported for constituents that are monitored at weekly or more frequent intervals.
[3] Weekly averages are calculated as a calendar week average.

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
MBAS	mg/L	0.5	--	--	0.25	--	0.25
Chloride	mg/L	190	--	--	186	--	186
Sulfate	mg/L	300	--	--	264	--	264
Nitrate-N (as N)	mg/L	7.2			7.1		8.5
Nitrite-N (as N)	mg/L	7.2	--	--	0.76	--	0.76
Nitrate plus Nitrite as Nitrogen	mg/L	7.2	--	--	7.1	--	8.5
Total Ammonia	mg/L	2.2[4]	--	2.2[4]	1.95	--	1.95
Antimony	µg/L	--	--	--	1.31	--	1.31
Arsenic	µg/L	--	--	--	4.2	--	4.2
Beryllium	µg/L	--	--	--	.015	--	0.15
Cadmium (wet)	µg/L	3.4	--	8.4	0.013	--	0.013
Total Chromium	µg/L	--	--	--	7	--	7
Copper (year round)	µg/L	25	--	31	21.1	--	21.1
Lead (year round)	µg/L	9	--	14	0.61	--	0.61
Mercury	µg/L	.051	--	.015	0.13	--	0.13
Nickel	µg/L	--	--	--	6.4	--	6.4
Selenium	µg/L	4.2	--	7.8	1.83	--	1.83
Silver	µg/L	--	--	--	0.02	--	0.02
Thallium	µg/L	--	--	--	0.12	--	0.12
Zinc (wet)	µg/L	194	--	277	71.2	--	71.2
Cyanide	µg/L	4.3	--	8.5	2.0	--	5.0
2,3,7,8-TCDD (Dioxin)	µg/L	--	--	--	<10.28	--	<10.28
Acrolein	µg/L	--	--	--	<1.62	--	<1.62
Acrylonitrile	µg/L	--	--	--	<0.5	--	<0.5
Benzene	µg/L	--	--	--	<.22	--	<.22
Bromoform	µg/L	--	--	--	0.75	--	0.75
Carbon Tetrachloride	µg/L	--	--	--	<0.31	--	<0.31
Chlorobenzene	µg/L	--	--	--	<0.5	--	<0.5

[4] Time Schedule Order R4-2012-0180

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
Dibromochloromethane	µg/L	--	--	--	9.95	--	9.95
Chloroethane	µg/L	--	--	--	<0.79	--	<0.79
2-Chloroethyl vinyl ether	µg/L	--	--	--	<0.8	--	<0.8
Chloroform	µg/L	--	--	--	30	--	30
Dichlorobromomethane	µg/L	--	--	--	23.4	--	23.4
1,1-Dichloroethane	µg/L	--	--	--	<0.26	--	<0.26
1,2-Dichloroethane	µg/L	--	--	--	<0.2	--	<0.2
1,1-Dichloroethylene	µg/L	--	--	--	<0.28	--	<0.28
1,2-Dichloropropane	µg/L	--	--	--	<0.32	--	<0.32
1,3-Dichloropropylene	µg/L	--	--	--	<0.24	--	<0.24
Ethylbenzene	µg/L	--	--	--	<0.16	--	<0.16
Methyl bromide	µg/L	--	--	--	<1.02	--	<1.02
Methyl chloride	µg/L	--	--	--	<0.37	--	<0.37
Methylene chloride	µg/L	--	--	--	0.47	--	0.47
1,1,2,2-Tetrachloro-ethane	µg/L	--	--	--	<0.34	--	<0.34
Tetrachloroethylene	µg/L	--	--	--	<0.19	--	<0.19
Toluene	µg/L	--	--	--	0.095	--	0.095
Trans 1,2-Dichloro-ethylene	µg/L	--	--	--	<0.31	--	<0.31
1,1,1-Trichloroethane	µg/L	--	--	--	<2.0	--	<2.0
1,1,2-Trichloroethane	µg/L	--	--	--	<0.31	--	<0.31
Trichloroethylene	µg/L	--	--	--	<0.18	--	<0.18
Vinyl Chloride	µg/L	--	--	--	<0.33	--	<0.33
2-Chlorophenol	µg/L	--	--	--	<1.05	--	<1.05
2,4-Dichlorophenol	µg/L	--	--	--	<1.06	--	<1.06
2,4-Dimethylphenol	µg/L	--	--	--	<0.94	--	<0.94
4,6-Dinitro-o-resol (2-methyl-4,6-Dinitrophenol)	µg/L	--	--	--	<1.67	--	<1.67

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
2,4-Dinitrophenol	µg/L	--	--	--	<2.82	--	<2.82
2-Nitrophenol	µg/L	--	--	--	<1.96	--	<1.96
4-Nitrophenol	µg/L	--	--	--	0.54	--	0.54
3-Methyl-4-Chlorophenol (P-chloro-m-resol)	µg/L	--	--	--	0.25	--	0.25
Pentachlorophenol	µg/L	--	--	--	0.53	--	0.53
Phenol	µg/L	--	--	--	<0.95	--	<0.95
2,4,6-Trichlorophenol	µg/L	--	--	--	<1.14	--	<1.14
Acenaphthene	µg/L	--	--	--	<0.13	--	<0.13
Acenaphthylene	µg/L	--	--	--	<0.13	--	<0.13
Anthracene	µg/L	--	--	--	<0.11	--	<0.11
Benzidine	µg/L	--	--	--	<1.81	--	<1.81
Benzo(a)Anthracene	µg/L	--	--	--	<0.14	--	<0.14
Benzo(a)Pyrene	µg/L	--	--	--	<0.13	--	<0.13
Benzo(b)Fluoranthene	µg/L	--	--	--	<0.14	--	<0.14
Benzo(ghi)Perylene	µg/L	--	--	--	0.04	--	0.04
Benzo(k)Fluoranthene	µg/L	--	--	--	<0.11	--	<0.11
Bis(2-Chloroethoxy) Methane	µg/L	--	--	--	<0.47	--	<0.47
Bis(2-Chloroethyl)Ether	µg/L	--	--	--	<0.33	--	<0.33
Bis(2-Chloroisopropyl) Ether	µg/L	--	--	--	0.09	--	0.09
Bis(2-Ethylhexyl) Phthalate	µg/L	--	--	--	0.53	--	0.53
4-Bromophenyl Phenyl Ether	µg/L	--	--	--	<0.53	--	<0.53
Butylbenzyl Phthalate	µg/L	--	--	--	0.06	--	0.06
2-Chloronaphthalene	µg/L	--	--	--	<0.45	--	<0.45
4-Chlorophenyl Phenyl Ether	µg/L	--	--	--	<0.5	--	<0.5
Chrysene	µg/L	--	--	--	<0.12	--	<0.12

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
Dibenzo(a,h) Anthracene	µg/L	--	--	--	0.03	--	0.03
1,2-Dichlorobenzene	µg/L	--	--	--	<0.39	--	<0.39
1,3-Dichlorobenzene	µg/L	--	--	--	<0.35	--	<0.35
1,4-Dichlorobenzene	µg/L	--	--	--	<0.35	--	<0.35
3-3'-Dichlorobenzidine	µg/L	--	--	--	<4.6	--	<4.6
Diethyl Phthalate	µg/L	--	--	--	<0.62	--	<0.62
Dimethyl Phthalate	µg/L	--	--	--	<0.64	--	<0.64
Di-n-Butyl Phthalate	µg/L	--	--	--	0.38	--	0.38
2-4-Dinitrotoluene	µg/L	--	--	--	<0.59	--	<0.59
2-6-Dinitrotoluene	µg/L	--	--	--	<0.58	--	<0.58
Di-n-Octyl Phthalate	µg/L	--	--	--	<0.82	--	<0.82
1,2-Diphenylhydrazine	µg/L	--	--	--	<0.43	--	<0.43
Fluoranthene	µg/L	--	--	--	<0.05	--	<0.05
Fluorene	µg/L	--	--	--	<0.08	--	<0.08
Hexachlorobenzene	µg/L	--	--	--	<0.54	--	<0.54
Hexachlorobutadiene	µg/L	--	--	--	<0.57	--	<0.57
Hexachlorocyclo pentadiene	µg/L	--	--	--	<3.83	--	<3.83
Hexachloroethane	µg/L	--	--	--	<0.27	--	<0.27
Indeno(1,2,3-cd)Pyrene	µg/L	--	--	--	0.07	--	0.07
Isophorone	µg/L	--	--	--	<0.47	--	<0.47
Naphthalene	µg/L	--	--	--	0.09	--	0.09
Nitrobenzene	µg/L	--	--	--	<0.64	--	<0.64
N-Nitrosodimethylamine	µg/L	--	--	--	<0.57	--	<0.57
N-Nitrosodi-n-Propylamine	µg/L	--	--	--	<0.53	--	<0.53
N-Nitrosodiphenylamine	µg/L	--	--	--	<0.44	--	<0.44
Phenanthrene	µg/L	--	--	--	0.09	--	0.09
Pyrene	µg/L	--	--	--	<0.05	--	<0.05

Parameter	Units	Effluent Limitation			Monitoring Data[1] (From Jan 2011 To Dec 2015)		
		Average Monthly	Average Weekly	Max-imum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge[2 3]	Highest Daily Discharge
1,2,4-Trichlorobenzene	µg/L	--	--	--	<0.42	--	<0.42
Aldrin	µg/L	--	--	--	<0.004	--	<0.004
Alpha-BHC	µg/L	--	--	--	<0.004	--	<0.004
Beta-BHC	µg/L	--	--	--	<0.003	--	<0.003
Gamma-BHC (Lindane)	µg/L	--	--	--	<0.005	--	<0.005
Delta-BHC	µg/L	--	--	--	<0.004	--	<0.004
Chlordane	µg/L	--	--	--	<0.056	--	<0.056
2,4‘- D	µg/L	--	--	--	<0.2	--	<0.2
4,4’-DDT	µg/L	--	--	--	<0.007	--	<0.007
4,4’-DDE	µg/L	--	--	--	<0.004	--	<0.004
4,4’-DDD	µg/L	--	--	--	<0.004	--	<0.004
Dieldrin	µg/L	--	--	--	<0.005	--	<0.005
Alpha-Endosulfan	µg/L	--	--	--	<0.005	--	<0.005
Beta-Endosulfan	µg/L	--	--	--	<0.005	--	<0.005
Endosulfan Sulfate	µg/L	--	--	--	<0.008	--	<0.008
Endrin	µg/L	--	--	--	0.002	--	0.002
Endrin Aldehyde	µg/L	--	--	--	<0.004	--	<0.004
Heptachlor	µg/L	--	--	--	0.001	--	0.001
Heptachlor Epoxide	µg/L	--	--	--	<0.006	--	<0.006
PCB 1016	µg/L	--	--	--	<0.0666	--	<0.0666
PCB 1221	µg/L	--	--	--	<0.116	--	<0.116
PCB 1232	µg/L	--	--	--	<0.066	--	<0.066
PCB 1242	µg/L	--	--	--	<0.062	--	<0.062
PCB 1248	µg/L	--	--	--	<0.068	--	<0.068
PCB 1254	µg/L	--	--	--	<0.05	--	<0.05
PCB 1260	µg/L	--	--	--	<0.077	--	<0.077
Toxaphene	µg/L	--	--	--	<0.085	--	<0.085
2,3,5 TP (Silvex)	µg/L	--	--	--	<0.11	--	<0.11
TTHMs	µg/L				64.9		64.9

D. Compliance Summary

1. Effluent Monitoring

The violations of effluent limitations during the previous permit cycle are summarized below:

a. Coliform limit violations were recorded from June 19 to 23, 2015, on February 7-10, 2015, on May 30 to June 8, 2011,and from April 30 to May 6, 2011
b. Chlorine residual of 1.01 exceeded the limit of 0.1 mg/L on May 10, 2014.
c. Turbidity was 10 NTU exceeding the 1 hour average limit of NTU on April, 27, 2011.

Chlorine residual and coliform violations were attributed to operational challenges to provide adequate disinfection while meeting ammonia limits.

2. Toxicity

The Tillman WRP reported 9 exceedances of the 1 TUc Monthly Median trigger in the effluent. Toxic events in the receiving water, which are contemporaneous with effluent toxicity exceedances, are reported here. The Permittee continues to seek causes for toxicity in all receiving water, including the toxicity that is not related to the effluent toxicity.

Table F-3. Summary of Chronic Toxicity Data

Test Date/ Location	Test Species	Endpoint	NOEC	TUc	Monthly Median TUc	EC/IC25	%Effect in 100% Sample
8/15/12 Effluent	*Ceriodaphnia dubia*	Survival	100%	1	>16	>100%	0.00%
		Reproduction	< 6.25%	>16		0.920%	78.12%
3/19/15 Effluent	*Selenastrum capricornutum*	Absorbance	50%	Invalid	2	>100%	--
3/26/15 Effluent	*Selenastrum capricornutum*	Absorbance		2			
8/15/12 RSW 630	*Ceriodaphnia dubia*	Survival	100%	1	>1	20.00%	--
		Reproduction	< 100	>1		33.74%	
8/15/12 RSW 628	*Ceriodaphnia dubia*	Survival	100%	1	>1	0.00%	--
		Reproduction	< 100%	>1		10.94%	
8/15/12 RSW 622	*Ceriodaphnia dubia*	Survival	100%	1	>1	20.00%	--
		Reproduction	< 100%	>1		29.18%	
8/15/12 RSW 616	*Ceriodaphnia dubia*	Survival	100%	1	>1	10.00%	--
		Reproduction	< 100%	>1		52.28%	
8/15/12 RSW 614	*Ceriodaphnia dubia*	Survival	100%	1	>1	10.00%	--
		Reproduction	<100%	>1		44.68%	

E. Planned Changes

The following table presents the planned changes at the Tillman WRP.

Table F-4. Planned Changes

Project Name	Description	Start Date	End Date
Advanced Water Purification Facility	Recycled water produced at Tillman WRP will be treated utilizing purification processes and technologies including ozonation, biologically activated carbon (BAC), multiple-barrier filtration (e.g., microfiltration [MF] and reverse osmosis [RO]), and/or advanced oxidation processes (AOP). Purified water would be used under the Proposed Project to replenish the San Fernando Basin with up to 30,000 AFY through new and existing pipelines to Hansen and Pacoima spreading grounds	Not specified	12/3/2021
Backup Power	Upgrade emergency backup power system	8/28/2018	8/11/2020
Channel 1 Air Sparger	Install new spargers, new air return line and bulkhead in channel 1	7/2/2017	10/1/2018
Chlorination System Improvements	Install new diffusers in channel 5 to improve disinfection. Upgrade sodium hypochlorite injection system	7/4/2017	7/3/2018
Chlorine Contact Tanks High Pressure Effluent Line	Replace high pressure effluent lines and risers in chlorine contact tanks	11/10/2016	7/3/2017
Niwa Road Sewer Installation	Install sewer system at Niwa Road near Japanese Garden	2/15/2017	12/15/2017
Primary Sludge Withdrawal System	Replace primary sludge piping, valves, and controls	2/2/2017	2/2/2018

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 for point source discharges from this facility to surface waters.

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 Plan.** 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, 2001, 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 USC § 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-5. Basin Plan Beneficial Uses – Receiving Waters

Dis-charge Points	Receiving Water Name	Beneficial Use(s)
001	Los Angeles River Upstream -Figueroa St. (Hydro. Unit No. 405.21)	Existing:ground water recharge (GWR); contact water recreation (REC-1)[7]; non-contact water recreation (REC-2); warm fresh water habitat (WARM); wildlife habitat (WILD); and wetland habitat[5] (WET). Potential: municipal and domestic water supply[6] (MUN), and industrial service supply (IND).
	Los Angeles River Figueroa Street-Carson St. (Hydro. Unit No. 405.15)	Existing:GWR; REC-1[7]; REC-2; and WARM. Potential: MUN[6]; IND; and WILD.
	Los Angeles River Carson St.-Estuary (Hydro. Unit No. 405.12)	Existing:GWR; REC-1[7]; REC-2; WARM; marine habitat (MAR); WILD; and rare, threatened, or endangered species (RARE)[8]. Potential:MUN[6]; IND; industrial process supply (PROC); migration of aquatic organisms (MIGR)[9]; spawning, reproduction, and/or early development (SPWN); and shellfish harvesting (SHELL).
	Los Angeles River Estuary (Hydro.Unit No. 405.12)	Existing:IND; navigation (NAV); REC-1[7]; REC-2; commercial and sport fishing (COMM); estuarine habitat (EST); MAR; WILD; RARE[8]; MIGR[9]; SPWN; and WET[5]. Potential:SHELL.

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

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	San Fernando Basins (East and West of Highway 405) (DWR Basin 4-12)	Existing: Municipal and domestic water supply (MUN); industrial service supply (IND); industrial process supply (PROC); and agricultural supply (AGR)
	Los Angeles Coastal Plain (Central and West Basins) (DWR Basin 4-11)	Existing: Municipal and domestic water supply (MUN); industrial service supply (IND); industrial process supply (PROC); and agricultural supply (AGR)

[5] Waterbodies designated as WET may have wetlands habit associated with only a portion of the waterbody. Any regulatory action would require a detailed analysis of the area.

[6] The potential municipal and domestic supply beneficial uses for the water body is consistent with the State Water Board Order No. 88-63 and Regional Water Board Resolution No. 89-003; however, the Regional Water Board has only conditionally designated the MUN beneficial use and at this time cannot legally establish effluent limitations designed to protect the conditional designation.

[7] Access prohibited by Los Angeles County Department of Public Works.

[8] One or more rare species utilize estuaries and coastal wetlands for foraging and/or nesting.

[9] Aquatic organisms utilize estuary and coastal wetland, to a certain extent, for spawning and early development. This may include migration into areas, which are heavily influenced by freshwater inputs.

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 (SIP).** 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 § 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 § 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 Policies**. Federal regulation 40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal

antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). 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's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR § 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 § 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

8. **Endangered Species Act (ESA) Requirements**. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California ESA (Fish and Game Code, sections 2050 to 2097) or the Federal ESA (16 USC sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Permittee is responsible for meeting all requirements of the applicable ESA.

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**. 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 reclamation[10], 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 investigate the feasibility of additional recycling efforts to reduce the amount of treated effluent discharged via this NPDES Order. This study will also need to consider the necessity of a water rights CWC section 1211 application which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water

[10] 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)

body.. The Permittee shall submit this feasibility study as part of the submittal of the ROWD for the next permit renewal.

12. **Monitoring and Reporting**. 40 CFR § 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 implementating 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 biosolides/sludge, which may have been included in the previous NPDES Order, are not included in this renewal Order. Major publically owned treatment works should contact USEPA (Ms. Lauren Fondahl or her predecessor) regardling the submittal of biosolids/sludge reports and any e-submittal requirements.

D. Impaired Water Bodies on CWA 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 parties. 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 (TMDL) for the Los Angeles Region. The 303(d) List can be viewed at the following link:

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

The Los Angeles River and its tributaries are in the California 2012 Integrated Report. The following are the identified pollutants impacting the receiving water, where standards are not met and a TMDL is required, but not yet completed.

Los Angeles River Estuary (Queensway Bay) - Calwater Watershed 40512000 (Hydro. Unit No. 405.12 in Basin Plan) / USGS HUC 1807010402
Pollutants: chlordane[11] (sediment), DDT (Dichlorodiphenyltrichloroethane)[11] (sediment), PCBs (Polychlorinated biphenyls)[11](sediment), sediment toxicity[11], trash[12].

Los Angeles River Reach 1 (Estuary to Carson Street) - Calwater Watershed 40512000 (Hydro. Unit No. 405.12 in Basin Plan) / USGS HUC 1807010402
Pollutants: ammonia[12], cadmium[11], coliform bacteria[12], copper[12], cyanide[11], diazinon[11], lead[12], nutrients (algae) [12], trash[12], zinc(dissolved)[11] and pH[11].

[11] A TMDL must be prepared for this pollutant.
[12] A TMDL has been adopted by USEPA to address this pollutant.

Los Angeles River Reach 2 (Carson Street to Figueroa Street) - Calwater Watershed 40515010 (Hydro. Unit No. 405.15 in Basin Plan) / USGS HUC 1807010402
Pollutants: ammonia[12], coliform bacteria[12], copper[12], lead[12], nutrients (algae) [12], oil[11], and trash[11].

The Los Angeles River Reach 3 (Figueroa Street to Riverside Drive) - Calwater Watershed 40521000 (Hydro. Unit No. 405.21 in Basin Plan) / USGS HUC 1807010210
Pollutants: ammonia[12], Copper[12], Lead[12], Nutrients (Algae) [12], and Trash[12].

Los Angeles River Reach 4 (Riverside Drive to Sepulveda Dam) - Calwater Watershed 40521000 (Hydro. Unit No. 405.21 in Basin Plan) / USGS HUC 1807050206
Pollutants: ammonia[12], coliform bacteria[11], copper[12], lead[12], nutrients (algae) [12], trash[11].

Los Angeles River Reach 5 (Sepulveda Dam to Balboa Blvd) - Calwater Watershed 40521000 (Hydro. Unit No. 405.21 in Basin Plan) / USGS HUC 1807050206
Pollutants: ammonia[12], copper[12], lead[12], nutrients (algae) [12], oil[11], trash[11].

Los Angeles River Reach 6 (Above Balboa Blvd) - Calwater Watershed 40521000 (Hydro. Unit No. 405.21 in Basin Plan) / USGS HUC 1807050208
Pollutants: coliform bacteria[11], selenium[11]

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.

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 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 § 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.

   Stormwater runoff from the Tillman WRP is regulated separately under General NPDES permit No. CAS000001. On May 14, 2015, the Permittee filed a Notice of Intent to comply with the requirements of Order No. 2014-0057-DWQ, a general permit to discharge storm water associated with industrial activity. The City 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 § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order 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 supersede 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 Permittee 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 Permittee 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 water body for

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

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 Adminstrative Law 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 Bellfower 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 the Office of Adminstrative Law (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 Triobutaries Metals TMDL*. On November 17, 2015, the State Water Resource Control Board adopted Resolution No. 2015-0069, *Approving an Amendment to the Water Quality Control Plan for the Los Angeles Regional (Basin Plan) to Adopt Ste-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. However, the USEPA has not approved this resolution. Consistent with the Alaska Rule and finding 18 of Resolution R15-004 which states that "the Basin Plan amendments will become effective upon approval by OAL and USEPA, R15-004 is therefore not yet in effect.

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. The amendment also includes 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. **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 geometric mean TMDL numeric target of 126/100 mL E.coli are permitted within the month. *The LA River Bacteria* became effective on March 23, 2012.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

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

A. Discharge Prohibitions

Effluent and receiving water limitations in this Order are based on the CWA, Basin Plan, State Water Board 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 Nos. EFF-001A and EFF-001B. 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 EPA develop secondary treatment standards for POTWs as defined in Section 304(d)(1). Regulations promulgated in 40 CFR § 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards. EPA 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 five-day biochemical oxygen demand, total suspended solids, and pH.

2. **Applicable Technology-Based Effluent Limitations**

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, limitations in previous Order No. R4-2011-0196 are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding. Mass-based effluent limitations are based on a design flow rate of 80 MGD at Discharge Point Nos. EFF-001A and EFF-001B. 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-7. Summary of TBELS

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Max Daily	Instantaneous Minimum	Instantaneous Maximum
$BOD_5$20°C	mg/L	20	30	45	--	--
	lbs/day[13]	13,340	20,020	30,020	--	--
TSS	mg/L	15	40	45	--	--
	lbs/day[13]	10,010	26,690	30,020	--	--
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 for the City of Woodland.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA section 301(b) and 40 CFR § 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 technology equivalence requirements that are necessary to achieve water

[13] The mass emission rate is based on the plant design flow rate of 80.0 MGD, and is 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 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.

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

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. **$BOD_5$20°C and TSS**

$BOD_5$20°C is a measure of the quantity of the organic matter in the water and, therefore, the water's potential for becoming depleted in dissolved oxygen. As organic degradation takes place, bacteria and other decomposers use the oxygen in the water for respiration. Unless there is a steady resupply of oxygen to the system, the water will quickly become depleted of oxygen. Adequate dissolved oxygen levels are required to support aquatic life. Depressions of dissolved oxygen can lead to anaerobic conditions resulting in odors, or, in extreme cases, 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.

Tillman WRP provides tertiary treatment requirements, such as, the $BOD_5$20°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 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 anti-backsliding exceptions apply. Those limits were all included in the previous permit (Order R4-2011-0196) and the Tillman WRP has been able to meet both limits (monthly average and the daily maximum), for both $BOD_5$20°C and TSS.

In addition to including mass-based and concentration-based effluent limitations for $BOD_5$20°C and TSS, the Order also contains percent removal requirement for these two constituents. In accordance with 40 CFR §§ 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 § 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 anti-backsliding exceptions apply. The monthly average and daily maximum limits were both included in the previous permit (Order R4-2011-0196) and the Tillman 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 visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. The monthly average and the daily maximum limits cannot be removed because none of the anti-backsliding exceptions apply. Both limits were included in the previous permit (Order No. R4-2011-0196) and the Tillman 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. The Tillman WRP has been able to meet this limit.

vi. **Total Dissolved Solids (TDS), 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

Tillman 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 will always be present in potable water which is the supply source of the wastewater entering the Facility. 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 CCR Title 22, to protect the surface water groundwater recharge (GWR) beneficial use and the groundwater basin's 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 pollutants discharged, the discharge has the reasonable potential to exceed both the numeric MBAS WQO and the narrative WQO for the prohibition of floating material such as foams and scums. Therefore, an effluent limit for MBAS 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 (NO_3 –N), Nitrite Nitrogen (NO_2 –N), Total Inorganic Nitrogen (NO_2 + 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. Objectives for nitrogen and related effects are discussed on page F-28.

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 § 122.44(d). Total inorganic nitrogen will be the indicator parameter intended to control algae, pursuant to 40 CFR § 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, 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 (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, it states 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. 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, Regional Water Board and non-government 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 Ammonia Nitrogen Objectives into Effluent Limitations Applicable to Discharge Point EFF-001A.

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.

The Discharger's effluent data is summarized below. Aquatic Early Life Stage (ELS) are absent all year long:

pH = 7.2 at 50th percentile and temperature = 26.1°C

pH = 7.4 at 90th percentile

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 = 7.4 in the formula above, the resulting One-hour Average Objective is equal to **23.0 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 4 (Sepulveda Drive to Riverside Drive):

ELS Absent year round.

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

Where T = temperature expressed in ºC.

Substituting the values of pH and temperature in the above formula, the 30-day Average SSO ELS Absent = **5.2 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 5.18 = **13.0 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 allowed 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 Absent (all year)

ECA multiplier from Table 3-6, when CV = 0.2

One-hour Average = 0.672

Four-day Average = 0.815

30-day Average = 0.927

Using the LTA equations:

$LTA_{1\text{-hour/99}} = ECA_{1\text{-hour}} \times ECA\ multiplier_{1\text{-hour99}}$

= 22.97 x 0.672 = 15.434 mg/L

$LTA_{4\text{-day/99}}\ ELS_{Absentt} = ECA_{4\text{-day}} \times ECA\ multiplier_{4\text{-day99}}$

= 12.96 x 0.815 = 10.570 mg/L

$LTA_{30\text{-day/99}}\ ELS_{Absent} = ECA_{30\text{-day}} \times ECA\ multiplier_{30\text{-day99}}$

= 5.18 x 0.927 = 4.81 mg/L

Step 4 – Select the (most limiting) of the LTAs derived in Step 3 (LTAmin)

ELS Absent LTA_{min} = 4.81 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 LTA1-hour/99, therefore n = 30.

CV = 0.2

MDEL multiplier = 1.488

AMEL multiplier = 1.319

MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 4.807 x 1.488 = **7.2 mg/L**

AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 4.807 x 1.319 = **5.1 mg/L**

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 an MDEL of **6.4 mg/L** and an AMEL of **4.6 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:*

A. 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.

B. 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 samples when the ammonia effluent data exceeded 2.2 mg/L. The first was detected on January 5, 2016 and the second was detected on February 1, 2016 at concentrations of 2.24 mg/L and 2.26 mg/L, respectively. The maximum effluent concentration (MEC) is equal to 2.26 mg/L. The Time Schedule Order R4-2012-0180 average monthly effluent limitation is 2.2 mg/L. Since the monthly average of the ammonia results in January and February 2016 were less than 2.2 mg/L, there was no exceedance of the ammonia maximum average monthly effluent limitation. Ssince 2012, the treatment plant has produced an average ammonia effluent concentration of approximately 1.1 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.

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 and the current configuration of the treatment facility shall be set equal to MEC + an MOSF of 33% x MEC . From the facility's data, the MEC for Tillman WRP is equal to 2.26 mg/L and the MOSF is 0.74 mg/L. The ammonia nitrogen MDEL WQBEL is not adjusted with a MOFS 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 3.0 mg/L for 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 3.0 mg/L, the facility can consistently comply with the ammonia 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 WQBELs versus the translated limitations based on the SSO-derived WLA is presented in Table F-8.

Figure F-1: Ammonia Performance Data

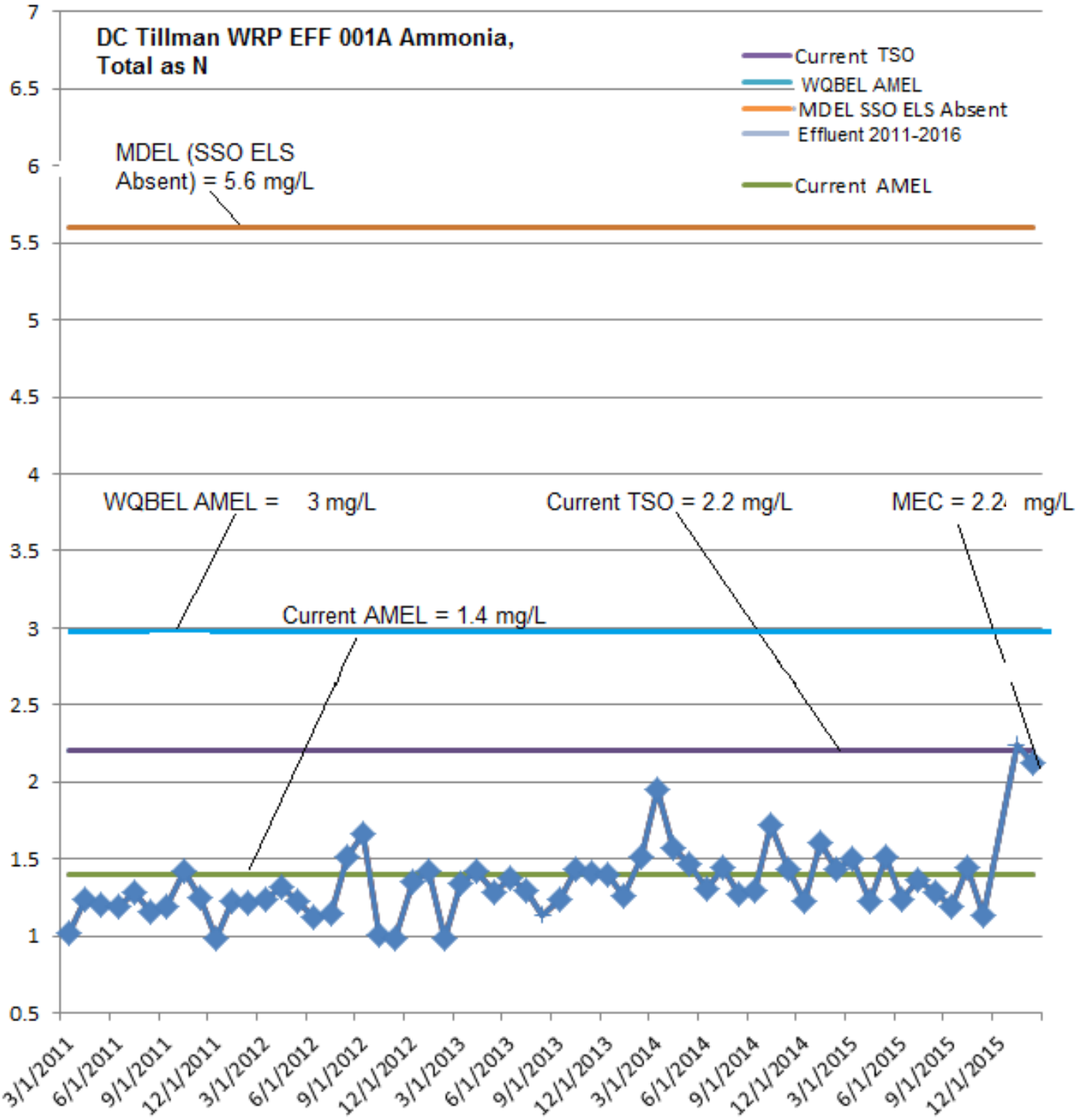

Table F-8. Summary of Ammonia Effluent Limitations for EFF-001

Parameter	Units	Translated Using SSO and WLAs		WQBELS with MOSF	Final for this Order	
		Average Monthly	Maximum Daily	Average Monthly	Average Monthly	Maximum Daily
Ammonia Nitrogen (ELS Absent)	mg/L	4.6	5.6	3.0	3.0	5.6
	lbs/ day	3070	3700	2000	2000	3700

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

A. 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 RSW-630, downstream of DCTWRP below the Sepulveda Dam. Please see Table 1 of the Final Staff Report of Resolution R3-009.

B. 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.

C. Chemistry monitoring to include all nitrogen species, including total ammonia, pH, hardness, temperature, sodium, potassium, calcium, BOD, sulfate, total dissolved solids, and chloride.

D. 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.

E. 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 3.0 mg/L for Tillman WRP, as identified in this Order 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:**

A. 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,

B. The number of total coliform bacteria must not exceed an MPN or CFU of 23 per 100 milliliters in more than one sample within any 30-day period; and

C. 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 Divison of Drinking Water. These limits 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)**

The *LA River Bacteria TMDL* contains Waste Load Allocations (WLAs) for Tillman, Los Angeles-Glendale, and Burbank WRPs. WLAs are expressed as allowable exceedance days. The WLAs for Tillman WRP 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.

c) **Receiving Water Limitations**:

A. Geometric Mean Limitations:

E.coli density shall not exceed 126/100 mL.

B. Single Sample Limitations:

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 became 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.

(1) 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).

(2) 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.

(3) 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. 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. Tillman WRP has been meeting this limit since 2011.

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 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 lmitations for radioactivity 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 CCR, 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. Tillman WRP has been meeting this limit since 2011.

d. **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 USEPA NPDES Permit Writers Technical Support Document (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 2012 to February 2016.

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

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 is pertinent, then best professional judgment is used to determine that a limit is needed.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Permittee will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional

Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

Based on the SIP RPA, the pollutants that demonstrate reasonable potential are cadmium, copper, selenium, cyanide, dibenzo(a,h)anthracene, indeno (1,2,3-cd) pyrene and heptachlor. In addition, since the *TMDL for Metals for the Los Angeles River* developed metal waste load allocations for Tillman WRP for cadmium, copper, lead and zinc, final effluent limitations are included with the permit for these pollutants.

The following Table summarizes results from RPA for D.C. Tillman discharge at EFF-001.

Table F-9. 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	1.31	3 (RSW 612)	No	C>B C>MEC
2	Arsenic	150	4.2	6.41	No	C>B C>MEC
3	Beryllium	Narrative	.03	0.065	No	No criteria
4	**Cadmium**	4.7[14]	13	1.84 (RSW 628)	**Yes**	**MEC>C TMDL WLA**
5	Total Chromium	11	7	5.27 (RSW 616)	No	C>MEC
6	**Copper**	26[14]	21.1	89.2 (RSW 628)	**Yes**	**B>C TMDL WLA**
7	**Lead**	10[14]	0.61	2.66 (RSW 612)	**Yes**	**TMDL WLA**
8	Mercury	0.051	.026	0.0161 (RSW 612)	No	C>B C>MEC
9	Nickel	680	6.2	44.4 (RSW 612)	No	C>B C>MEC
10	**Selenium**	5	1.83	7 (RSW-612)	**Yes**	**B>C and detected in effluent**
11	Silver	8.63	.04	.143 (RSW 616)	No	C>B C>MEC
12	Thallium	6.3	.23	0.2 (RSW 622)	No	C>B C>MEC
13	**Zinc**	212[17]	71.2	58.1 (RSW 616)	**Yes**	**TMDL WLA**
14	**Cyanide**	5.2	4	7 (RSW-612)	**Yes**	**B>C and detected in effluent**
15	Asbestos	$7x10^6$ fibers/L	No sample	No sample	No	N/A
16	2,3,7,8-TCDD (Dioxin)	0.014	<10.28	<10.28	No	Not detected

[14] Limit based on metal TMDL waste load allocation

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
17	Acrolein	780	<1.62	<1.62	No	Not detected
18	Acrylonitrile	0.66	<.5	<.5	No	Not detected
19	Benzene	71	<.22	0.135 (RSW 622)	No	C>B
20	Bromoform	360	1.55	<.3	No	C>MEC
21	Carbon Tetrachloride	4.4	<.31	<.31	No	Not detected
22	Chlorobenzene	21,000	<.5	<.15	No	Not detected
23	Dibromochloromethane	34	9.95	0.925 (RSW 616)	No	C>B C>MEC
24	Chloroethane	NONE	<.79	<.79	No	No criteria
25	2-Chloroethyl vinyl ether	NONE	<.8	<.8	No	No criteria
26	Chloroform	NONE	30	9.84	No	No criteria
27	Dichlorobromomethane	46	23.4	4.74	No	C>B C>MEC
28	1,1-Dichloroethane	NONE	<.26	<.26	No	No criteria
29	1,2-Dichloroethane	99	<.2	<.2	No	Not detected
30	1,1-Dichloroethylene	3.2	<.28	<.28	No	Not detected
31	1,2-Dichloropropane	39	<.32	<.32	No	Not detected
32	1,3-Dichloro-propylene	1,700	<.24	<.24	No	Not detected
33	Ethylbenzene	29,000	<.16	<.16	No	Not detected
34	Methyl bromide	4,000	<1.02	<1.02	No	Not detected
35	Methyl chloride	Narrative	<.37	<.37	No	No criteria
36	Methylene chloride	1,600	0.47	0.15	No	C>MEC
37	1,1,2,2-Tetrachloroethane	11	<.34	<.34	No	Not detected
38	Tetrachloroethylene	8.85	<.19	<.19	No	Not detected
39	Toluene	200,000	0.095	0.495	No	C>B C>MEC
40	Trans 1,2-Dichloroethylene	140,000	<.31	<.31	No	Not detected
41	1,1,1-Trichloroethane	NONE	<2	<2	No	No criteria
42	1,1,2-Trichloroethane	42	<.31	<.31	No	Not detected

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
43	Trichloroethylene	81	<.18	<.18	No	Not detected
44	Vinyl Chloride	525	<.33	<.33	No	Not detected
45	2-Chlorophenol	400	<1.05	<1.05	No	Not detected
46	2,4-Dichlorophenol	790	<1.06	<1.06	No	Not detected
47	2,4-Dimethylphenol	2,300	<.94	<.94	No	Not detected
48	4,6-dinitro-o-resol (aka 2-methyl-4,6-Dinitrophenol)	765	<1.67	<1.67	No	Not detected
49	2,4-Dinitrophenol	14,000	<2.82	<2.82	No	Not detected
50	2-Nitrophenol	NONE	<1.96	<1.96	No	No criteria
51	4-Nitrophenol	NONE	1.08	<1.72	No	No criteria
52	3-Methyl-4-Chlorophenol (aka P-chloro-m-resol)	NONE	.49	<.71	No	No criteria
53	Pentachlorophenol	8.2	1.06	<1.49	No	C>MEC
54	Phenol	4.6x10^6	<.95	<.95	No	Not detected
55	2,4,6-Trichlorophenol	6.5	<1.14	<1.14	No	Not detected
56	Acenaphthene	2,700	<.13	<.13	No	Not detected
57	Acenaphthylene	NONE	<.13	<.13	No	Not detected
58	Anthracene	110,000	<.11	<.11	No	Not detected
59	Benzidine	0.00054	<1.81	<1.81	No	Not detected
60	Benzo(a)Anthracene	0.049	<.14	<.14	No	Not detected
61	Benzo(a)Pyrene	0.049	<.13	<.13	No	Not detected
62	Benzo(b)Fluor-anthene	0.049	<.14	.06 (RSW 616)	No	B>C Not detected in effluent
63	Benzo(ghi)Perylene	NONE	.08	.32 (RSW 612)	No	No criteria
64	Benzo(k) Fluoranthene	0.049	<.11	.06 (RSW 616)	No	B>C Not detected in effluent

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
65	Bis(2-Chloroethoxy) methane	NONE	<.47	<.47	No	No criteria
66	Bis(2-Chloroethyl) Ether	1.4	<.33	<.33	No	Not detected
67	Bis(2-Chloroisopropyl) Ether	170,000	.17	<.53	No	C>MEC
68	Bis(2-Ethylhexyl) Phthalate	5.9	1.05	4.7 (RSW 4)	No	C>B C>MEC
69	4-Bromophenyl Phenyl Ether	NONE	<.53	<.53	No	No criteria
70	Butylbenzyl Phthalate	5,200	.11	<.74	No	C>MEC
71	2-Chloronaphthalene	4,300	<.45	<.45	No	Not detected
72	4-Chlorophenyl Phenyl Ether	NONE	<.5	<.5	No	No criteria
73	Chrysene	0.049	<.12	.1 (RSW 622)	No	B>C Not detected in effluent
74	**Dibenzo(a,h) anthracene**	0.049	.05	.35 (RSW616)	**Yes**	**B>C and detected in effluent**
75	1,2-Dichlorobenzene	17,000	<.39	<.39	No	Not detected
76	1,3-Dichlorobenzene	2,600	<.35	<0.35	No	Not detected
77	1,4-Dichlorobenzene	2,600	<.35	<.35	No	Not detected
78	3-3'-Dichloro-benzidine	0.077	<4.6	<4.6	No	Not detected
79	Diethyl Phthalate	120,000	<.62	7.8 (RSW 622)	No	B>C Not detected in effluent
80	Dimethyl Phthalate	2.9x10^6	<.64	.7 (RSW 622)	No	B>C Not detected in effluent
81	Di-n-Butyl Phthalate	12,000	.78	0.29 (RSW 614)	No	C>B C>MEC
82	2-4-Dinitrotoluene	9.1	<.59	<.59	No	Not detected
83	2-6-Dinitrotoluene	NONE	<.58	<.58	No	No criteria
84	Di-n-Octyl Phthalate	NONE	<.82	.81 (RSW 622)	No	No criteria
85	1,2-Diphenyl-hydrazine	0.54	<.43	<.43	No	Not detected
86	Fluoranthene	370	<.05	<.05	No	Not detected

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
87	Fluorene	14,000	<.08	<.08	No	Not detected
88	Hexachlorobenzene	0.00077	<.54	<.54	No	Not detected
89	Hexachlorobutadiene	50	<.57	<.57	No	Not detected
90	Hexachlorocyclo-penta-diene	17,000	<3.83	<3.83	No	Not detected
91	Hexachloroethane	8.9	<.27	<.27	No	Not detected
92	**Indeno(1,2,3-cd) Pyrene**	0.049	0.07	.29 (RSW 616)	**Yes**	**B>C and detected in effluent**
93	Isophorone	600	<.47	<.47	No	Not detected
94	Naphthalene	NONE	.18	<.13	No	No criteria
95	Nitrobenzene	1,900	<.64	<.64	No	Not detected
96	N-Nitrosodi-methylamine	8.1	<.57	<.57	No	Not detected
97	N-Nitrosodi-n-Propylamine	1.4	<.53	<.53	No	Not detected
98	N-Nitrosodi-phenylamine	16	<.44	<.44	No	Not detected
99	Phenanthrene	NONE	0.09	<.05	No	No criteria
100	Pyrene	11,000	<.05	<.05	No	Not detected
101	1,2,4-Trichlorobenzene	NONE	<.42	<.42	No	Not detected
102	Aldrin	0.00014	<.004	<.004	No	Not detected
103	Alpha-BHC	0.013	<.004	<.004	No	Not detected
104	Beta-BHC	0.046	<.003	<.003	No	Not detected
105	Gamma-BHC (aka Lindane)	0.063	<.005	<.005	No	Not detected
106	delta-BHC	NONE	<.004	<.004	No	Not detected
107	Chlordane	0.00059	<.056	8.4 (RSW 622)	No	B>C , not detected in effluent
108	4,4'-DDT	0.00059	<.007	<.007	No	Not detected

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
109	4,4'-DDE	0.00059	<.004	.01 (RSW 622)	No	B>C, not detected in effluent
110	4,4'-DDD	0.00084	<.004	<.004	No	Not detected
111	Dieldrin	0.00014	<.005	<.005	No	Not detected
112	Alpha-Endosulfan	0.056	<.005	<.005	No	Not detected
113	Beta-Endosulfan	0.056	<.005	<.005	No	Not detected
114	Endosulfan Sulfate	240	<.008	<.008	No	Not detected
115	Endrin	0.036	.004	<.007	No	C>MEC
116	Endrin Aldehyde	0.81	<.004	<.004	No	Not detected
117	**Heptachlor**	0.00021	.002	<.006	**Yes**	**MEC>C**
118	Heptachlor Epoxide	0.00011	<.006	<.006	No	Not detected
119	PCB 1016	0.00017	<.0666	<.0666	No	Not detected
120	PCB 1221	0.00017	<.116	<.116	No	Not detected
121	PCB 1232	0.00017	<.066	<.066	No	Not detected
122	PCB 1242	0.00017	<.062	<.062	No	Not detected
123	PCB 1248	0.00017	<.068	<.068	No	Not detected
124	PCB 1254	0.00017	<.05	<0.04	No	Not detected
125	PCB 1260	0.00017	<.077	<.077	No	Not detected
126	Toxaphene	0.0002	<.085	<.085	No	Not detected

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 EFF-001A discharges into the Los Angeles River, Reach 4 as described by the *LA River Metals TMDL*. The Tillman WRP has wet-weather WLAs for cadmium, copper, lead, and zinc (4.7 µg/L, 103 µg/L, 10 µg/L, and 212 µg/L, respectively). The Tillman WRP has dry-weather WLAs only for copper and lead (103 µg/L and 10 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 of the SIP RPA procedures was not triggered for copper because the MEC does not exceed the lowest criteria. Tier 2 was triggered because the effluent contained copper and a background concentration at RSW-628 measured 89.2 ug/L. 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 (103 µg/L), a conversion factor specified in the TMDL, and a 0.24 coefficient of variation can be used to calculate the WQBELs with SIP/CTR procedures. The final effluent limitations for copper apply to both wet and dry weather conditions. Therefore, the limitation for copper applies all-year round.

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 WER for copper is 3.96. The revision also stated that :

> "Regardless of the WER, effluent limitations shall ensure that effluent concentrations and mass dischargers do not exceed the levels of water quality that can be attained by performance of this facility's treatment technologies existing at the time of permit issuance, reissuance, or modification."

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 of 25 µg/L and 31 µg/L, respectively. The MEC) of 21.1 µg/L was measured on October 31, 2013. Since 2012, the treatment plant's performance with regard to the average copper effluent concentration was approximately 11 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 Tillman WRP reflective of plant performance shall be equal to the MEC + MOSF of 28% of the MEC. The MEC for copper = 21.1 ug/L and the MOSF is thus 5.9 µg/L. Copper performance based AMEL shall be set equal to 21.1 + 5.9 = 27 µg/L. The calculated performance based WQBEL of 27 µg/L is marginally higher than the current copper final effluent limitation of 25 µg/L as AMEL. The current MDEL is carried over as the proposed MDEL. These proposed WQBELs take into consideration the factors that affect facility's performance and the current operation of the Tillman WRP. These WQBELs will also provide a buffer for operational variability to bring the facility into maintaining compliance with the copper final effluent limitations.

In contrast, if the assigned WER of 3.96 for copper is applied, the effluent limitations would have been: AMEL = 3.96 x 18 = 71 µg/L and MDEL = 3.96 x 26 = 103 µg/L. In the absence of an anti-degradation and anti-backsliding analysis of best practicable treatment or control that would allow for a less stringent effluent limitation, the performance based AMEL has been calculated and the 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 basedWQBELs for AMEL and MDEL are set at 27 µg/L and 31 µg/L, respectively, the facility can consistently comply with the copper final effluent limitations without derating the plant's capacity. 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-10.

Figure F-2 Copper Performance Data

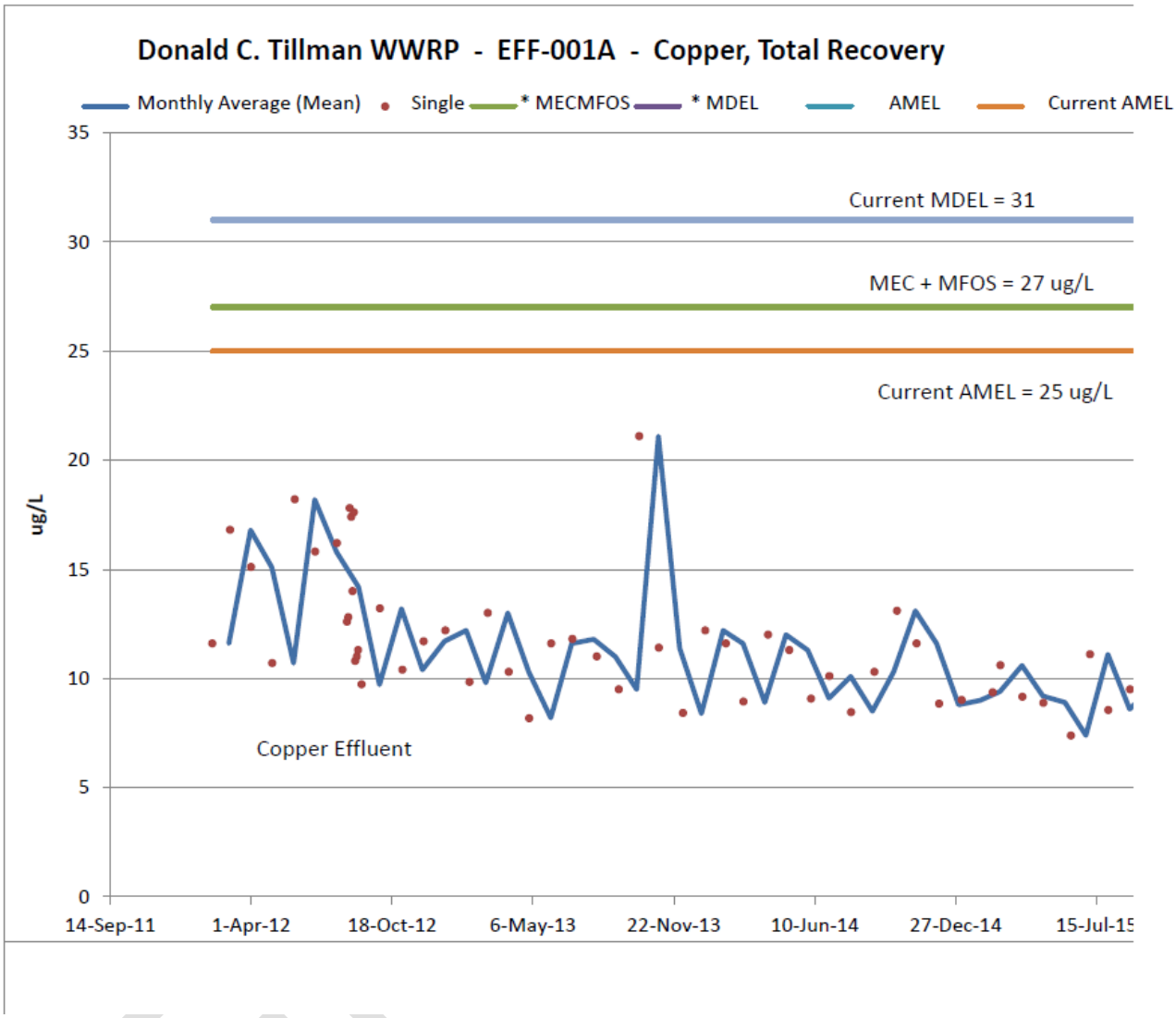

Table F-10. Copper Effluent Limit Comparison

Parameter	Units	Current Limit TMDL WLA		WQBEL and Final for this Order	
		AMEL	MDEL	AMEL	MDEL
Copper (all year round)	ug/L	25	31	27	31
	lbs/day	16	21	18	21

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* established WLAs for this pollutant. In this permit, the TMDL-established WLAs for lead

(10 µg/L), the USEPA default conversion factors, the TMDL default maximum hardness of 400 mg/L, and a 0.53 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 apply all-year round.

iii. Cadmium: Tier 1 of the SIP RPA procedures was triggered for cadmium because the MEC was 13 ug/L and higher than the TMDL-established criteria for cadmium (4.7µg/L). In this permit, The USEPA default conversion factors, the TMDL default maximum hardness of 400 mg/L, and a 3.6 coefficient of variation, and the waste load allocations described in the LA River Metal TMDL, 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 (212 µg/L), the USEPA default conversion factors, the TMDL default maximum hardness of 400 mg/L, and a 0.094 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 publicly-owned treatment works (POTWs) in place of average weekly limitations."

Sample calculation for Indeno(1,2,3-cd)Pyrene. The constituent is measured, but not quantified in the Tillman WRP effluent and detected in the receiving water background at levels above the lowest criteria, so a water quality limit should be set as specified in the SIP.

Step 1: Identify applicable water quality criteria

The California Toxics Rule (CTR) gives criteria only for protection of aquatic life and human health.

Freshwater Aquatic Life Criteria:

CMC = NA µg/L (CTR page 31715, column B1) and

CCC = NA µg/L (CTR page 31715, column B2); and

Human Health Criteria for Organisms only = 0.049 µg/L (CTR page 31715, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Criteria, since no dilution is allowed.

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

The CV of .6 is used because the constituent was detected in only 2 of 17 samples, 88% were non detects. The following calculation is as directed in the Section 1.4 of SIP.

CV = Standard Deviation/Mean = 0.6

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:

ECA Multiplier acute = 0.321 and

ECA Multiplier chronic = 0.527

LTA acute = ECA acute x ECA Multiplier acute

= (NA) µg/L x 0.321 = NA ug/L

LTA chronic = ECA chronic x ECA Multiplier chronic

= (NA) ug/L x 0.527= NA µg/L

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 HUMAN HEALTH

Find the multipliers from SIP Table 2 (page 9). 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.

AMEL Multiplier = 1.55

MDEL Multiplier = 3.11

AMEL aquatic life = lowest LTA (from Step 4) x AMEL Multiplier

= (NA) µg/L x 1.55 = NA µg/L

MDEL aquatic life = lowest LTA (from Step 4) x MDEL Multiplier

= (NA) µg/L x 3.11 = NA µg/L

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.

The MDEL/AMEL human health factor = 2.01

AMEL human health = ECA = 0.049 µg/L

MDEL human health = ECA x MDEL/AMEL factor

= 0.049 µg/L x 2.01 = 0.098 µg/L

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** µg/L (Based on human health protection)

Lowest MDEL = **0.098** µg/L (Based on human health protection)

d. Impracticability Analysis

Federal NPDES regulations contained in 40 CFR § 122.45 for continuous discharges, states that all permit limitations, standards, and prohibitions for POTWs, including those to achieve water quality standards, shall unless impracticable be stated as average weekly and average monthly discharge limitations for all dischargers 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 for mercury because it 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 disrupters 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 § 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 § 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-11. Summary of Water Quality Based Effluent Limits at EFF-001

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Min.	Instan-taneous Max.
Water Quality-Based Effluent Limitations Applicable to Discharge Points 001A						
Cadmium (wet)	µg/L	2.1	--	6.9	--	--
	lbs/day[13]	1.4	--	4.6	--	--
Copper (all year)	µg/L	27	--	31	--	--
	lbs/day[13]	18		21	--	--
Lead (all year)	µg/L	5.3	--	10	--	--
	lbs/day[13]	3.5	--	6.7	--	--
Selenium	µg/L	2.2	--	5	--	--
	lbs/day[13]	1.5	--	3.3	--	--
Zinc (wet)	µg/L	205	--	236	--	--
	lbs/day[13]	137	--	158	--	--
Cyanide	µg/L	4.3	--	8.5	--	--
	lbs/day[13]	2.9	--	5.7	--	--
Dibenzo(a,h)anthracene	µg/L	0.024	--	0.049	--	--
	lbs/day[13]	.02	--	.03	--	--
Indeno(1,2,3cd) pyrene	µg/L	0.024	--	0.049	--	--
	lbs/day[13]	.02	--	.03	--	--
Heptachlor	µg/L	.0001	--	.0002	--	--
	lbs/day[13]	.00007	--	.00013	--	--

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instan-taneous Min.	Instan-taneous Max.
Chronic Toxicity[15]	Pass or Fail, % Effect (TST)	Pass[16]	--	Pass or % Effect <50	--	--
Ammonia Nitrogen	mg/L	3	--	5.6	--	--
Nitrate (as N)	mg/L	7.2	--	--	--	--
Nitrite (as N)	mg/L	.9	--	--	--	--
Nitrate plus Nitrite (as N)	mg/L	7.2	--	--	--	--

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 Tillman WRP effluent, or could have synergistic or additive effects. There are multiple exceedances of the 1.0 TUc monthly median trigger for accelerated monitoring observed in the final effluent sampled between in 2011 and 2016. 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-3. The Regional Water Board has 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 2016 permit only contains final effluent limitations for chronic toxicity, 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

[15] 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.”

[16] This is a Median Monthly Effluent Limitation.

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 Tillman 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 State Water Board stated its intention to release 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 2017 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 titled: "EPA Regions 8, 9 and 10 Toxicity Training Tool," which among other things discusses permit limit expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR 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 present. Nevertheless, USEPA's acute and chronic WET methods require that effluent and ambient concentration-response patterns generated for multi-concentration acute and chronic toxicity tests be reviewed - as a component of test review following statistical analysis - to ensure that the calculated measurement result for the toxicity test is interpreted appropriately. (EPA-821-R-02-012, section 12.2.6.2; EPA-821-R-02-013, section 10.2.6.2.). In 2000, 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).

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 Percent Minimum Significant Difference (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. R4-2011-0196, with the exception of the limitations for ammonia asnitrogen, copper, zinc 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 exceeded the AMEL and the TSO lmit of 2.2 mg/L. 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 an AMEL for ammonia as nitrogen that is 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 DC Tillman WRP, current performance is best represented by expressing the AMEL as the sum of the MEC and MOSF. The DC Tillman WRP has been operating under a Time Schedule Order with a 2.2 mg/L interim AMEL because it was unable to comply with the 1.4 mg/L AMEL contained in the 2011 NPDES Order. The 3.0 mg/L AMEL in the renewal Order is consistent with the findings of the 2007 staff report for the *Amendment to the Water Quality Control Plan to Incorporate Site-specific Ammonia Objectives for Select Inland Surface Waters in the San Gabriel River, Los Angeles River and Santa Clara River Watersheds.* That staff report acknowledged that "the level of ammonia discharged from the POTW can on occasion be between 2 and 3 mg/L due to operational variations." The 5.6 mg/L MDEL was based on the translated TMDL SSO-derived WLA without subtracting an additional margin of safety and is intended to prevent de-rating of the facility as the DC Tillman WRP phases out use of a clarifier as a temporary equalization basin. The AMEL and the MDEL for ammonia in the renewal Order are in conformance with the anti-backsliding requirements because the DC Tillman WRP had not been able to consistently meet the limitations set forth in the 2011 Order; they are either consistent with the assumptions of the *LA River Nitrogen Compounds TMDL,* equal to or more stringent than the WQBELs contained in the 2012 Order; and the effluent limitations will be confirmed as adequately protective of the receiving water with the implementation of the Ammonia Receiving Water Confirmatory Monitoring special study. Tillman WRP will not be increasing its mass; and, in addition, the facility plans on recycling more of its effluent.

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 11.7 µg/L and the average receiving water copper concentration, over the last three years at station RSW-630, was 9.8 µg/L. Moreover, NPDES regulations at 40CFR 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 3.96. Regardless of the WER, effluent limitations shall ensure that effluent concentrations and mass discharges do not exceed the levels of water quality that can be attained by performance of this facility's treatment technologies existing at the time of permit issuance, reissuance, or modification."

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 effect 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 DC Tillman 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. By maintaining the MDEL from the 2011 Order, the Tillman WRP will not be increasing its mass discharge.

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 reflective of plant performance consistent with the applicable TMDLs, if the flow conditions or other extenuating circumstances cause a significant change in the water reclamation plant's treatment performance.

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. 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. R4-2011-0196 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-12. Summary of Final Effluent Limitations for Discharge Point EFF-001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
$BOD_5 20^oC$	mg/L	20	30	45	--	--	Tertiary treatment technology
	lbs/day[17]	13,340	20,020	30,020	--	--	
TSS	mg/L	15	40	45	--	--	Tertiary treatment technology
	lbs/day[17]	10,010	26,690	30,020	--	--	
Turbidity[18]	NTU	2	--	5	--	10	Tertiary treatment technology
pH	standard units	--	--	--	6.5	8.5	Basin Plan
Temperature	°F	--	--	86	--	--	EPA Gold Book & BPJ
Removal Efficiency for BOD and TSS	%	85	--	--	--	--	40 CFR part 133

[17] The mass emission rates are based on the plant design flow rate of 80 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day.

[18] 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					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
Radioactivity[19]							
Combined Radium-226 and Radium 228	pCi/L	5[19]	--	--	--	--	Title 22
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15[19]	--	--	--	--	Title 22
Uranium	pCi/L	20[19]	--	--	--	--	Title 22
Gross Beta/photon emitters	millirem/ year	4[19]	--	--	--	--	Title 22
Strontium-90	pCi/L	8[19]	--	--	--	--	Title 22
Tritium	pCi/L	20,000[19]	--	--	--	--	Title 22
Total coliform[20]	MPN or CFU/100 mL	23	2.2	240	--	--	Tertiary treated technology
E.coli[21]	MPN or CFU/100 mL	126	2.2	235	--	--	LA River Bacteria TMDL
Oil and Grease	mg/L	10	--	15	--	--	Basin Plan narrative and BPJ
	lbs/day[17]	6,670		10,010	--	--	
Settleable Solids	ml/L	0.1	--	0.3	--	--	Basin Plan narrative and BPJ

[19] 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.

[20] 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.

[21] 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	Instant-aneous Min.	Instant-aneous Max.	
Total Residual Chlorine	mg/L	--	--	0.1	--	--	Basin Plan
Chloride	mg/L	190[22]	--	--	--	--	Basin Plan
	lbs/day[17]	126,770	--	--	--	--	
Total Dissolved Solids	mg/L	950	--	--	--	--	Basin Plan
	lbs/day[17]	633,840	--	--	--	--	
Sulfate	mg/L	300	--	--	--	--	Basin Plan
	lbs/day[17]	200,160	--	--	--	--	
MBAS	mg/L	0.5[23]	--	--	--	--	Basin Plan
	lbs/day[17]	330	--	--	--	--	
Total Trihalomthane	µg/L	80	--	--	--	--	Basin Plan
Nitrate (as N)	mg/L	7.2[24]	--	--	--	--	Basin Plan
Nitrite (as N)	mg/L	0.9[24]	--	--	--	--	Basin Plan
Nitrate + Nitrite (as N)	mg/L	7.2	--	--	--	--	Basin Plan
Ammonia Nitrogen (as N)	mg/L	3[25]	--	5.6[25]	--	--	TMDL/ WQBEL+ MOSF
Cadmium (wet weather)[26 27 28]	µg/L	2.1	--	6.9	--	--	TMDL
	lbs/day[17]	1.4	--	4.6	--	--	
Copper (dry and wet weather)[26 27 28]	µg/L	27	--	31	--	--	TMDL/ WQBEL+ MOSF
	lbs/day[17]	18		21			

[22] 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.
[23] Based on the secondary drinking water standard (CDPH 1992).
[24] This is the WLA, according to the *Nitrogen Compounds TMDL* Resolution No. 2003-009, adopted by the Regional Water Board on July 10, 2003. The WLA serves as the effluent concentration limitation for the discharge. It became effective on March 23, 2004.
[25] This is the Water Quality Based limit developed using best professional judgement and according to the *Nitrogen Compounds TMDL* Resolution No. 2003-009, adopted by the Regional Water Board on July 10, 2003.
[26] Limit based on metal TMDL
[27] This effluent limitation does not apply during dry-weather when the maximum daily flow measured at USGS Station 11087020 is less than 260 cubic feet per second.

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Maximum Daily	Instant-aneous Min.	Instant-aneous Max.	
Lead (dry and wet weather)[26 27 28]	µg/L	5.3	--	10	--	--	TMDL
	lbs/day[17]	3.5	--	6.7	--	--	
Selenium	µg/L	2.2	--	5	--	--	CTR/SIP
	lbs/day[17]	1.5	--	3.3	--	--	
Zinc (wet weather)[26 27 28]	µg/L	205	--	236	--	--	TMDL
	lbs/day[21]	137[28]	--	158	--	--	
Cyanide	µg/L	4.3	--	8.5	--	--	CTR/ SIP
	lbs/day[21]	2.9	--	5.7	--	--	
Dibenzo(a,h) Anthracene	µg/L	0.024	--	0.049			CTR/ SIP
	lbs/day[21]	.02	--	.03			
Indeno(1,2,3cd) pyrene	µg/L	0.024	--	0.049	--	--	CTR/ SIP
	lbs/day[21]	.02	--	.03	--	--	
Chronic Toxicity[29]	Pass or Fail, % Effect (TST)	Pass[30]	--	Pass or % Effect <50	--	--	TST & USEPA Guidance
Heptaclor	µg/L	.00011	--	.0002			CTR/ SIP
	lbs/day[17]	.00007	--	.0001			

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..

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.

[28] According to *LA River Metals TMDL*, the mass-based effluent limitations are set for cadmium, copper, lead, and zinc and apply in dry weather, but do not apply during wet weather when the influent exceeds the plant design flow rate of 80 MGD.

[29] 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."

[30] This is a Median Monthly Effluent Limitation.

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 for the surface water. Surface water from the Los Angeles River, and possibly from the clay-lined bottoms of Balboa and Wildlife Lake, percolates into the Sepulveda Groundwater Basin. Since groundwater from these Basins is used to provide drinking water to the community, the groundwater aquifers should be protected. The receiving waters which receive discharge from the Tillman facility are protected by limits and monitoring specified in Waste Discharge Requirement R4-2007-0008 with amendments.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The 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**

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 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). 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 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**

The requirement for a Pollutant Minimization Program (PMP)is based on the requirements of section 2.4.5 of the SIP.

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

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

5. **Special Provisions for Municipal Facilities (POTWs Only)**

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 Permittee 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

Section 308(a) of the federal Clean Water Act and sections 122.41(h), (j)-(l), 122,44(i), and 122.48 of Title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements 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-13. Effluent Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2011 Permit)	Monitoring Frequency (2016 Permit)
Total waste flow	continuous	no change
Turbidity	continuous	no change
Total residual chlorine	continuous	no change
Total residual chlorine	daily	no change
Total coliform	daily	no change
Fecal coliform	daily	no change
E.coli	weekly (as necessary)	no change
Temperature	daily	no change
pH	daily	no change
Settleable solids	daily	no change
TSS	daily	no change
$BOD_{5@20^{o}C}$	weekly	no change
Oil and grease	weekly	no change
Dissolved oxygen	monthly	no change
Total dissolved solids	monthly	no change
Chloride	monthly	no change
Sulfates	monthly	quarterly[31]
Boron	quarterly	no change
Fluoride	quarterly	no change
Ammonia nitrogen	monthly	no change
Nitrate nitrogen	monthly	Quarterly[32]
Nitrite nitrogen	monthly	quarterly[32]
Organic nitrogen	monthly	Quarterly[32]
Total nitrogen	monthly	Quarterly[32]
Surfactants (MBAS)	monthly	no change
Surfactants (CTAS)	monthly	no change
Total hardness ($CaCO_3$)	monthly	no change
Chronic toxicity	monthly	no change

[31] There is no RP
[32] No RPA and no WLA from the Nitrogen TMDL

Parameter	Monitoring Frequency (2011 Permit)	Monitoring Frequency (2016 Permit)
Acute toxicity	monthly	no change
Perchlorate	semiannually	no change
1,4-Dioxane	semiannually	no change
1,2,3-Trichloropropane	semiannually	no change
MTBE	semiannually	no change
Antimony	quarterly	no change
Arsenic	quarterly	no change
Beryllium	quarterly	no change
Cadmium	monthly	no change
Total Chromium	quarterly	no change
Chromium III	quarterly	no change
Chromium VI	quarterly	no change
Copper	monthly	no change
Lead	monthly	no change
Mercury	monthly	quarterly[33]
Nickel	quarterly	no change
Selenium	monthly	no change
Silver	quarterly	no change
Thallium	quarterly	no change
Zinc	monthly	no change
Cyanide	monthly	no change
Bromoform	semiannually	semiannually [33]
Dibromochloromethane	semiannually	semiannually [33]
Chloroform	semiannually	semiannually [33]
Dichlorobromomethane	semiannually	semiannually [33]
Pentachlorophenol	semiannually	semiannually [33]
Tetrachloroethylene	semiannually	no change
Bis(2-ethylhexyl)phthalate	semiannually	quarterly[29]
Gamma-BHC	semiannually	no change
Diazinon[34]	quarterly	no change

[33] There is no RP, but the constituent is present in the effluent at present or historically

Parameter	Monitoring Frequency (2011 Permit)	Monitoring Frequency (2016 Permit)
2,4-D	semiannually	no change
2,4,5-TP (Silvex)	semiannually	no change
Dibenzo(a,h)Anthracene	semiannually	monthly[35]
Indeno(1,2,3-cd)Pyrene	semiannually	monthly[31]
Heptaclor	semiannually	monthly[37]
TTH	quarterly	semiannually
Pesticide[36]	semiannually	no change
PCBs	semiannually	annually[37]
Remaining USEPA priority pollutants[38] excluding asbestos and PCBs	semiannually	no change
Radioactivity[39]	semiannually	no change

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (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" and "Percent Effect" for the median monthly summary results and "Pass" or :"Fail" and "Percent Effect" for each individual chronic

[34] Diazinon is on the California 2008-2010 Integrated Report Section 303(d) List of Impaired Waters requiring TMDLs for the Los Angeles Region.

[35] There is RP

[36] Pesticides are, for purposes of this order, those six constituents referred to in 40 CFR part 125.58(p) (demeton, guthion, malathion, methoxychlor, mirex, and parathion).

[37] PCBs as aroclors shall be analyzed using method EPA 608, PCBs as congeners shall be analyzed using method EPA 1668c. PCBs as congeners shall be analyzed for three years and may be discontinued for the remaining life of this Order if none of the PCBs congeners are detected using method EPA 1668c. The more extensive monitoring requirements shall be completed annually, instead of semiannually.
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.

[38] 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.

[39] 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 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.

toxicity result. The chronic toxicity effluent limitations protect the narrative water quality objective in the Basin Plan. The rationale for WET testing has been discussed extensively in section IV.C.5. of this fact sheet.

D. Receiving Water Monitoring

1. Surface Water

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

The receiving water monitoring program in this Order has not been modified from the previous Order. Receiving waters are within the parameters set by the City of Los Angeles Department of Recreation and Parks, the agency responsible for the regular monitoring, observation and biological assessment of the Sepulveda Basin ponds and streams. The receiving water met the limits in the previous Order, except where noted in the reasonable potential analysis and compliance summary. Where constituents exceeded water quality objectives or receiving water limits and were present in the effluent, a limit was set to prevent the receiving water from exceeding the criteria. Upgradient water quality was occasionally found to be inferior to that measured below the Sepulveda Basin at RSW 630, especially for salts.

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 major permittees and 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 Permittee 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 Permittee 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 Permittee 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

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

Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area shall be considered. The beneficial uses of the water bodies in the Los Angeles River watershed 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.

IX. PUBLIC PARTICIPATION

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for DC Tillman 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 Permittee 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 Los Angeles Times on xxx, 2016.

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 where due either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order, or by email submitted to losangeles@waterboards.ca.gov

To be fully responded to by staff and considered by the Regional Water Board, the written comments are 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:	November 10, 2016
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 Elizabeth Erickson at (213) 576 6665.

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

D. EP toxicity

1. Toxicity Characteristic Leaching Procedure (TCLP)
2. Chemical analysis

E. Industrial waste survey (IWS)

1. Information on lUs with categorical standards or local limits and other significant non-categorical lUs
2. Number of lUs
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 or Discharger) 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 § 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 § 403.8(f)(2); and

    d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR § 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 Discharger is not in compliance with any conditions or requirements of this permit, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger 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 Discharger is not required to sample and analyze for asbestos. The Discharger shall also provide any influent or effluent monitoring data for nonpriority pollutants which the Discharger 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 Discharger 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 Discharger'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 Discharger 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 Discharger 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 § 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 § 403.8(f)(2)(viii).

B. LOCAL LIMITS EVALUATION

1. In accordance with 40 CFR § 122.44(j) (2) (ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR § 403.5(c) (1) within 180 days of issuance or reissuance of the Tillman Water Quality Control Plant (TILLMAN WRP) 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 § 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 Report must be sent to USEPA electronically to the following address: R9Pretreatment@epa.gov.