CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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Los Angeles Regional Water Quality Control Board
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ORDER R4-2021-XXXX
NPDES NUMBER CA0053911

WASTE DISCHARGE REQUIREMENTS FOR THE JOINT OUTFALL SYSTEM SAN JOSE CREEK WATER RECLAMATION PLANT

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

Table 1. Discharger Information

Discharger:	Joint Outfall System (JOS, Discharger, or Permittee)
Name of Facility:	San Jose Creek Water Reclamation Plant (San Jose Creek WRP or Facility)
Facility Address:	1965 South Workman Mill Road Whittier, CA 90601 Los Angeles County

Table 2. Discharge Location

Discharge point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Tertiary treated wastewater	33.930613	-118.107791	San Gabriel River
001A	Tertiary treated wastewater	33.994405	-118.073476	San Gabriel River
001B	Tertiary treated wastewater	33.969771	-118.088866	San Gabriel River
002	Tertiary treated wastewater	34.035446	-118.021100	San Jose Creek
003	Tertiary treated wastewater	34.036081	-118.030631	San Gabriel River
004	Tertiary treated wastewater	34.111125	-117.971036	San Gabriel River
005	Tertiary treated wastewater	34.131603	-117.950228	San Gabriel River

Table 3. Administrative Information

This Order was Adopted on:	October 14**, 2021**
This Order shall become effective on:	December 1**, 2021**
This Order shall expire on:	November 30**, 2026**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with Title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**180 days prior to the Order expiration date**
The United States Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board have classified this discharge as follows:	**Major**

I, Renee Purdy, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on **the date indicated above**.

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Renee Purdy, Executive Officer

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1. FACILITY INFORMATION

Information describing the San Jose Creek Water Reclamation Plant (San Jose Creek WRP or Facility) is summarized in Table 1 and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

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

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

2.2. Background and Rationale for Requirements. The Los Angeles Water Board developed the requirements in this Order based on information submitted as part of the application, and 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.

2.3. Provisions and Requirements Implementing State Law. The provisions and requirements in subsection 4.3, 4.4, and 5.2 are included to implement state law only. These provisions and requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

2.4. Notification of Interested Parties. The Los Angeles Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.5. Consideration of Public Comment. The Los Angeles Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED that Order Number R4-2015-0070 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the 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 Los Angeles Water Board from taking enforcement action for past violations of the previous Order.

3. DISCHARGE PROHIBITIONS

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

3.2. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision 1.7. of Attachment D, Standard Provisions.

3.3. The monthly average effluent dry weather discharge flow rate from the East and West Facilities shall not exceed the 62.5 and 37.5 million gallons per day (mgd) design capacity, respectively.

3.4. The Permittee shall not cause degradation of any water body, except as consistent with State Water Board Resolution Number 68-16.

3.5. The treatment or disposal of wastes from the facility shall not cause pollution or nuisance as defined in section 13050, subdivisions (*l*) and (m), of the Water Code.

3.6. The discharge of any substances in concentrations toxic to human, animal, plant, or aquatic life is prohibited.

3.7. The discharge of any radiological, chemical, or biological warfare agent or high-level radiological waste is prohibited.

3.8. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE PROHIBITIONS

4.1. Final Effluent Limitations – Discharge Points 001, 001A, 001B, 002, 003, 004, and 005

4.1.1. Final Effluent Limitations - Discharge Points 001, 001A, and 001B (Effluent from East and West Facilities to San Gabriel River)

a. The Discharger shall maintain compliance with the following effluent limitations in Table 4 at Discharge Points 001, 001A, and 001B, with compliance measured at Monitoring Location EFF-001, EFF-001A or EFF-001B (temperature, residual chlorine, and pH measured at EFF-001X, EFF-001AX, and EFF-001BX) as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations for Discharge Points 001, 001A, and 001B

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Biochemical Oxygen Demand ($BOD_5$20°C)	mg/L	20	30	45	---
($BOD_5$20°C)	lbs/day	16,700	25,000	37,500	a
Total Suspended Solids (TSS)	mg/L	15	40	45	---
TSS	lbs/day	12,500	33,400	37,500	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Removal Efficiency for BOD and TSS	%	≥85	---	---	---
Oil and Grease	mg/L	10	---	15	---
Oil and Grease	lbs/day	8,340	---	12,510	a
Settleable Solids	mL/L	0.1	---	0.3	---
Total Residual Chlorine	mg/L	---	---	0.1	---
Total Residual Chlorine	lbs/day	---	---	83	---
Temperature	°F	---	---	80	e
Total coliform	MPN or CFU/100 mL	23	2.2	240	b
Combined Radium-226 and Radium 228	pCi/L	5	---	---	g
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	g
Uranium	pCi/L	20	---	---	g
Gross Beta/photon emitters	millirem/ year	4	---	---	g
Strontium-90	pCi/L	8	---	---	g
Tritium	pCi/L	20,000	---	---	g
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.00012	---	0.00023	a
Cyanide	µg/L	4.4	---	8.3	---
Cyanide	lbs/day	3.7	---	6.9	a
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.041	---	0.082	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	0.00018	---	0.00035	a
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (dioxin)	lbs/day	1.2E-08	---	2.3E-08	a
Total trihalomethanes (TTHM)	µg/L	80	---	---	f
TTHM	lbs/day	66.7	---	---	---

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (Test of Significant Toxicity (TST)), % Effect	Pass	---	Pass (TST) or % Effect < 50 (survival endpoint)	c and d

Footnotes for Table 4

a. The mass-based effluent limitations are based on the East and West plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. The wastes discharged to water courses shall 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 at some point in the treatment process does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Units (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.

c. A numeric WQBEL is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*

d. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL), and shall be reported as “Pass” or “Fail.” The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL) and shall be reported as “Pass” or “Fail” and “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests would constitute a violation of the chronic toxicity MMEL.

e. An interim effluent limitation for temperature is included in Section 4.2 of this Order for the duration of the compliance schedule.

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

g. The radioactivity final effluent limitations are derived from Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR). The incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

End of Footnotes for Table 4

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

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

d. 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 (NTU) within a 24-hour period, (b) 5 NTU more than 5 percent of the time (72 minutes) within a 24-hour period, and (c) 10 NTU at any time.

Final Effluent Limitations – Discharge Point 001 Only

The Discharger shall maintain compliance with the following effluent limitations in Table 5 at Discharge Point 001 in addition to limitations in Table 4, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 5. Effluent Limitations for Discharge Point 001 Only

Parameter	Units	Average Monthly	Maximum Daily	Notes
Chloride	mg/L	230	---	---
Chloride	lbs/day	191,800	---	a
Ammonia Nitrogen (ELS Absent)	mg/L	4.5	7.3	---
Ammonia Nitrogen (ELS Absent)	lbs/day	3,753	6,088	a
Copper (dry weather)	µg/L	18	19	b
Lead	µg/L	7.9	11	---
Lead	lbs/day	6.6	9.2	a

Footnotes for Table 5

a. The mass-based effluent limitations are based on the East and West plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. This effluent limitation applies only during dry-weather when the maximum daily flow measured at USGS Station 11087020 is less than 260 cubic feet per second.

End of Footnotes for Table 5

Final Effluent Limitations – Discharge Point 001A Only

The Discharger shall maintain compliance with the following effluent limitations in Table 6 at Discharge Point 001A in addition to limitations in Table 4, with compliance measured at Monitoring Location EFF-001A as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 6. Effluent Limitations for Discharge Point 001A Only

Parameter	Units	Average Monthly	Maximum Daily	Notes
Chloride	mg/L	180	---	---
Chloride	lbs/day	150,100	---	a
MBAS	mg/L	0.5	---	---
MBAS	lbs/day	417	---	a
Sulfate	mg/L	300	---	---
Sulfate	lbs/day	250,200	---	a
TDS	mg/L	750	---	---
TDS	lbs/day	625,500	---	a
Boron	mg/L	1.0	---	---
Boron	lbs/day	830	---	a
Nitrate + Nitrite (as N)	mg/L	8	---	---
Nitrate + Nitrite (as N)	lbs/day	6,670	---	---
Nitrite as N	mg/L	1.0	---	---
Nitrite as N	lbs.day	830	---	---
Ammonia Nitrogen (ELS Present)	mg/L	3.1	5.1	---
Ammonia Nitrogen (ELS Present)	lbs/day	2,585	4,253	---
Ammonia Nitrogen (ELS Absent)	mg/L	3.8	6.2	---
Ammonia Nitrogen (ELS Absent)	lbs/day	3,169	5,171	---
Lead (wet weather)	µg/L	---	166	b
Copper	µg/L	16	20	---
Copper	lbs/day	13.3	16.7	a

Footnotes for Table 6

a. The mass-based effluent limitations are based on the East and West plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007, and the Implementation Plan for the *SGR Metals TMDL*, contained in Chapter 7-20 of the Basin Plan. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures and is only applied as a daily limit. This effluent limitation applies only during wet weather, when the maximum daily flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

End of Footnotes for Table 6

Final Effluent Limitations – Discharge Point 001B Only

The Discharger shall maintain compliance with the following effluent limitations in Table 7 at Discharge Point 001B in addition to limitations in Table 4, with compliance measured at Monitoring Location EFF-001B as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 7. Effluent Limitations for 001B Only

Parameter	Units	Average Monthly	Maximum Daily	Notes
Chloride	mg/L	180	---	---
Chloride	lbs/day	150,100	---	---
MBAS	mg/L	0.5	---	---
MBAS	lbs/day	417	---	---
Sulfate	mg/L	300	---	---
Sulfate	lbs/day	250,200	---	---
TDS	mg/L	750	---	---
TDS	lbs/day	625,500	---	---
Boron	mg/L	1.0	---	---
Boron	lbs/day	830	---	---
Nitrate + Nitrite (as N)	mg/L	8	---	---
Nitrate + Nitrite (as N)	lbs/day	6,670	---	---
Nitrite as N	mg/L	1.0	---	---
Nitrite as N	lbs.day	830	---	---
Ammonia Nitrogen (ELS Present)	mg/L	3.5	5.8	---
Ammonia Nitrogen (ELS Present)	lbs/day	2,919	4,837	---

Parameter	Units	Average Monthly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	mg/L	5.0	8.2	---
Ammonia Nitrogen (ELS Absent)	lbs/day	4,170	6,839	---
Lead (wet weather)	µg/L	---	166	b
Copper	µg/L	15	19	---
Copper	lbs/day	12.5	15.8	---

Footnotes for Table 7

a. The mass-based effluent limitations are based on the East and West plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007, and the Implementation Plan for the *SGR Metals TMDL*, contained in Chapter 7-20 of the Basin Plan. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures and is only applied as a daily limit. This effluent limitation applies only during wet weather, when the maximum daily flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

End of Footnotes for Table 7

4.1.2. Effluent Limitations – Discharge point 002 (Effluent from East Facility to San Jose Creek)

a. The Discharger shall maintain compliance with the following effluent limitations in Table 8 at Discharge Point 002, with compliance measured at Monitoring Location EFF-002 (temperature, residual chlorine, and pH measured at EFF-002X) as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 8. Effluent Limitations for Discharge Point 002

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
$BOD_5 20^oC$	mg/L	20	30	45	---
$BOD_5 20^oC$	lbs/day	10,400	15,600	23,500	a
TSS	mg/L	15	40	45	---
TSS	lbs/day	7,820	20,900	23,500	a
Temperature	°F	---	---	80	h

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Removal Efficiency for BOD and TSS	%	≥85	---	---	---
Oil and Grease	mg/L	10	---	15	---
Oil and Grease	lbs/day	5,210	---	7,820	a
Settleable Solids	ml/L	0.1	---	0.3	---
Total Residual Chlorine	mg/L	---	---	0.1	---
Total Residual Chlorine	lbs/day	---	---	52.1	a
Total Coliform	MPN or CFU/100mL	23	2.2	240	b
Radioactivity	---	---	---	---	i
Combined Radium-226 and Radium 228	pCi/L	5	---	---	i
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	i
Uranium	pCi/L	20	---	---	i
Gross Beta/photon emitters	millirem/ year	4	---	---	i
Strontium-90	pCi/L	8	---	---	i
Tritium	pCi/L	20,000	---	---	i
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	261	---	---	a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	156,000	---	---	a
TDS	mg/L	750	---	---	---
TDS	lbs/day	391,000	---	---	a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	93,800	---	---	a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	521	---	---	a
Nitrate + Nitrite (as N)	mg/L	8	---	---	---
Nitrate + Nitrite (as N)	lbs/day	4,170	---	---	a
Nitrite (as N)	mg/L	1.0	---	---	---
Nitrite (as N)	lbs/day	521	---	---	a
Ammonia Nitrogen (ELS Present)	mg/L	2.5	---	3.2	---
Ammonia Nitrogen (ELS Present)	lbs/day	1,303	---	1,668	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	mg/L	2.8	---	3.2	---
Ammonia Nitrogen (ELS Absent)	lbs/day	1,460	---	1,668	a
Lead (wet weather)	µg/L	---	---	166	c
Selenium (dry weather)	µg/L	4.4	---	7.4	d
Selenium (dry weather)	lbs/day	2.3	---	3.9	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.000073	---	0.00015	a
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.026	---	0.051	a
Total Trihalomethanes	µg/L	80	---	---	e
Total Trihalomethanes	lbs/day	41.7	---	---	a and e
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass (TST) or % Effect < 50 (survival endpoint)	f and g

Footnotes for Table 8

a. The mass-based effluent limitations are based on the East plant design flow rate of 62.5 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 shall be the only applicable effluent limitations.

b. The wastes discharged to water courses shall always 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 at some point in the treatment process does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Units (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.

c. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007, and the Implementation Plan for the *SGR Metals TMDL*, contained in Chapter 7-20 of the Basin Plan. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures and is only applied as a daily limit. This effluent limitation applies only during wet weather, when the maximum daily flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

d. This effluent limitation applies only during dry weather, when the flow in the San Gabriel River is less than 260 cubic feet per second (cfs), measured at United States Geological Survey (USGS) flow gauging station 11087020, located above the Whittier Narrows dam.

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

f. A numeric WQBEL is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*

g. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL) and shall be reported as "Pass" or "Fail." The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL) and shall be reported as "Pass" or "Fail" and "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests would constitute a violation of the chronic toxicity MMEL.

h. An interim effluent limitation for temperature is included in Section 4.2 of this Order for the duration of the compliance schedule.

i. The radioactivity final effluent limitations are derived from Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR). The incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

End of Footnotes for Table 8

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

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

d. 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 (NTU) within a 24-hour period, (b) 5 NTU more than 5 percent of the time (72 minutes) within a 24-hour period, and (c) 10 NTU at any time.

4.1.3. Effluent Limitations – Final Discharge point 003, 004, and 005 (Effluent from West Facility to San Gabriel River)

a. The Discharger shall maintain compliance with the effluent limitations in Table 9 at Discharge Point 003, with compliance measured at Monitoring Location EFF-003 (temperature, residual chlorine, and pH measured at EFF-003X) as described in the Monitoring and Reporting Program (MRP), Attachment E. Discharge Points 004 and 005 have been added to this Order but are not approved for discharge until after the

approval of a Title 22 Engineering Report by the Division of Drinking Water (DDW) and the WRR for the facility has been adopted.

Table 9. Effluent Limitations for Discharge Point 003, 004, and 005

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
$BOD_5$20°C	mg/L	20	30	45	---
$BOD_5$20°C	lbs/day	6,250	9,380	14,070	a
TSS	mg/L	15	40	45	---
TSS	lbs/day	4,690	12,500	14,070	a
Temperature	°F	---	---	80	b
Removal Efficiency for BOD and TSS	%	≥85	---	---	---
Oil and Grease	mg/L	10	---	15	---
Oil and Grease	lbs/day	3,130	---	4,690	a
Settleable Solids	ml/L	0.1	---	0.3	---
Total Residual Chlorine	mg/L	---	---	0.1	---
Total Residual Chlorine	lbs/day	---	---	31	a
Total Coliform	MPN or CFU/100mL	23	2.2	240	c
Combined Radium-226 and Radium 228	pCi/L	5	---	---	h
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	h
Uranium	pCi/L	20	---	---	h
Gross Beta/photon emitters	millirem/ year	4	---	---	h
Strontium-90	pCi/L	8	---	---	h
Tritium	pCi/L	20,000	---	---	h
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	156	---	---	a
Nitrate + Nitrite (as N)	mg/L	8	---	---	---
Nitrate + Nitrite (as N)	lbs/day	2,502	---	---	a
Nitrite (as N)	mg/L	1.0	---	---	---
Nitrite (as N)	lbs/day	313	---	---	a
Lead (wet weather)	µg/L	---	---	166	d
Iron	µg/L	300	---	---	---
Iron	lbs/day	93.8	---	---	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Total Trihalomethanes	µg/L	80	---	---	---
Total Trihalomethanes	lbs/day	25.0	---	---	a and e
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	4.4E-05	---	0.000088	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	6.6E-05	---	1.3E-04	a
2,3,7,8-TCDD (Dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (Dioxin)	lbs/day	4.4E-09	---	8.8E-09	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass (TST) or % Effect < 50 (survival endpoint)	f and g

Footnotes for Table 9

a. The mass-based effluent limitations are based on the West plant design flow rate of 37.5 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 shall be the only applicable effluent limitations.

b. An interim effluent limitation for temperature is included in Section 4.2 of this Order for the duration of the compliance schedule.

c. The wastes discharged to water courses shall always 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 at some point in the treatment process does not exceed a 7-day median of 2.2 Most Probable Number (MPN) or Colony Forming Units (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.

d. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries (SGR Metals TMDL)*, promulgated by USEPA Region IX, on March 26, 2007, and the Implementation Plan for the *SGR Metals TMDL*, contained in Chapter 7-20 of the Basin Plan. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures and is only applied as a daily limit. This effluent limitation applies only during wet weather, when the maximum daily flow in the San Gabriel River is greater than or equal to 260

cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam.

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

f. A numeric WQBEL is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf.*

g. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL), and shall be reported as "Pass" or "Fail." The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL), and shall be reported as "Pass" or "Fail" and "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests would constitutes a violation of the chronic toxicity MMEL.

h. The radioactivity final effluent limitations are derived from Title 22, chapter 15, article 5, sections 64442 and 64443, of the California Code of Regulations (CCR). The incorporation by reference is prospective including future changes to the incorporated provisions as the changes take effect.

End of Footnotes for Table 9

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

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

d. 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 (NTU) within a 24-hour period, (b) 5 NTU more than 5 percent of the time (72 minutes) within a 24-hour period, and (c) 10 NTU at any time.

Final Effluent Limitations – Discharge Point 003 Only

The Discharger shall maintain compliance with the following effluent limitations in Table 10 at Discharge Point 003, in addition to Table 9 with compliance measured at Monitoring Location EFF-003 as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 10. Effluent Limitations for Discharge Point 003 Only

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Present)	mg/L	1.9	---	2.7	---
Ammonia Nitrogen (ELS Present)	lbs/day	594	---	844	a
Ammonia Nitrogen (ELS Absent)	mg/L	3.5	---	4.7	---
Ammonia Nitrogen (ELS Absent)	lbs/day	1,000	---	1,470	a
TDS	mg/L	750	---	---	---
TDS	lbs/day	235,000	---	---	a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	56,300	---	---	a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	93,830	---	---	a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	313	---	---	a

Footnotes for Table 10

a. The mass-based effluent limitations are based on the West plant design flow rate of 37.5 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 shall be the only applicable effluent limitations.

End of Footnotes for Table 10

Effluent Limitations – Discharge Points 004 and 005 Only

The Discharger shall maintain compliance with the effluent limitations in Table 11 at Discharge Point Nos. 004 and 005 in addition to Table 9, with compliance measured at Monitoring Location EFF-003 as described in the Monitoring and Reporting Program (MRP), Attachment E. Discharge Point Nos. 004 and 005 have been added to this Order but are not approved for discharge until after the approval of a Title 22 Engineering Report by the Division of Drinking Water (DDW) and the WRR for the facility has been adopted.

Table 11. Effluent Limitations for Discharge Points 004 and 005 Only

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	mg/L	2.0	---	4.5	---

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	lbs/day	626	---	1,410	a
Copper	µg/L	19	---	25	---
Copper	lbs/day	5.9	---	7.8	a
Arsenic	µg/L	10	---	---	---
Arsenic	lbs/day	3.1	---	---	a
Selenium	µg/L	4.5	---	7.0	---
Selenium	lbs/day	1.4	---	2.2	a
TDS	mg/L	450	---	---	---
TDS	lbs/day	140,700	---	---	a
Chloride	mg/L	100	---	---	---
Chloride	lbs/day	31,300	---	---	a
Sulfate	mg/L	100	---	---	---
Sulfate	lbs/day	31,300	---	---	a
Boron	mg/L	0.5	---	---	---
Boron	lbs/day	156	---	---	a

Footnotes for Table 11

a. The mass-based effluent limitations are based on the West plant design flow rate of 37.5 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 shall be the only applicable effluent limitations.

End of Footnotes for Table 11

4.2. Interim Effluent Limitations for Discharge Points 001, 001A, 001B, 002, 003, 004, and 005

This Order includes a new, more stringent effluent limitation for temperature based on a new interpretation of the narrative water quality objective for temperature contained in the Basin Plan. Consistent with Section 1.e. of the State Water Board's Resolution 2008-0025 - Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits (Compliance Schedule Policy), the Discharger shall have up to ten years to implement actions specified in Table 13 to comply with a more stringent permit limitation. The interim effluent limitation in Table 12 shall apply from the effective date of Order Number R4-2021-XXXX until the expiration date of the compliance schedule.

Table 12. Interim Effluent Limitations for Discharge Points 001, 001A, 001B, 002, 003, 004, and 005

Constituent	Units	Daily Maximum	Notes
Temperature	°F	86	a

Footnote for Table 12

a. The temperature of the effluent shall not exceed 86°F except as a result of external ambient temperature. This interim limitation is based on the final effluent limitation for temperature in Order R4-2015-0070.

End of Footnote for Table 12

4.3. Land Discharge Specifications – Not Applicable

4.4. Recycling Specifications

The Discharger shall continue to investigate the feasibility of recycling, conservation, and/or alternative disposal methods for wastewater, and/or beneficial use of stormwater and dry-weather urban runoff. The Discharger shall submit an update to this feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

5. RECEIVING WATER LIMITATIONS

5.1. Surface Water Limitations

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

5.1.1. The natural receiving water temperature of all regional waters shall not be altered unless it can be demonstrated to the satisfaction of the Los Angeles Water Board that such alteration in temperature does not adversely affect beneficial uses. Additionally, for waters designated with a warm freshwater habitat (WARM) beneficial use, water temperature shall not be altered by more than 5°F above the natural temperature. At no time shall these WARM-designated waters be raised above 80°F as a result of waste discharge except during the term of the compliance schedule set forth in Table 13, section 6.3.7, when the following interim receiving water limitation is in effect: at no time shall these WARM-designated waters be raised above 86°F as a result of waste discharge, except as a result of external ambient temperature.

5.1.2. The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of wastes discharged. Ambient pH levels shall not be changed more than 0.5 units from natural conditions as a result of wastes discharged. Natural conditions shall be determined on a case-by-case basis.

5.1.3. The dissolved oxygen in the receiving water shall not be depressed below 5 mg/L as a result of the wastes discharged.

5.1.4. The total residual chlorine shall not persist in the receiving waters at any concentration that causes impairment of beneficial uses as a result of the wastes discharged.

5.1.5. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in natural turbidity attributable to controllable water quality factors shall not exceed the following limits, as a result of wastes discharged:

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

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

5.1.6. The wastes discharged shall not produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses in human, animal, or aquatic life.

5.1.7. The wastes discharged shall not cause concentrations of contaminants to occur at levels that are harmful to human health in waters which are existing or potential sources of drinking water.

5.1.8. The concentrations of toxic pollutants in the water column, sediments, or biota shall not adversely affect beneficial uses as a result of the wastes discharged.

5.1.9. The wastes discharged shall not contain substances that result in increases in BOD, which adversely affect the beneficial uses of the receiving waters.

5.1.10. 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.

5.1.11. 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.

5.1.12. The wastes discharged shall not cause the receiving waters to contain any substance in concentrations that adversely affect any designated beneficial use.

5.1.13. The wastes discharged shall not degrade surface water communities and populations, including vertebrate, invertebrate, and plant species.

5.1.14. The wastes discharged shall not alter the natural taste, odor, or color of fish, shellfish, or other surface water resources used for human consumption.

5.1.15. The wastes discharged shall not result in problems due to breeding of mosquitoes, gnats, black flies, midges, or other pests.

5.1.16. The wastes discharged shall not result in visible floating particulates, foams, or oil and grease in the receiving waters.

5.1.17. The wastes discharged shall not cause objectionable aquatic growths or degrade indigenous biota.

5.1.18. The wastes discharged shall not alter the color of the receiving waters; create a visual contrast with the natural appearance of the water; or cause aesthetically undesirable discoloration of the receiving waters.

5.1.19. 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.

5.1.20. The wastes discharged shall not cause the ammonia water quality objective (WQO) in the Basin Plan to be exceeded in the receiving waters. Compliance with the ammonia water quality objectives shall be determined by comparing the receiving water ammonia concentration to the ammonia water quality objective in the Basin

Plan. The ammonia water quality objective can also be calculated using the pH and temperature of the receiving water at the time of collection of the ammonia sample.

5.1.21. Chronic Toxicity Receiving Water Quality Objective

a. There shall be no chronic toxicity in ambient waters as a result of wastes discharged.

b. Receiving water and effluent toxicity testing shall be performed on the same day as close to concurrently as possible.

5.2. Groundwater Limitations

The discharge shall not cause the underlying groundwater to be degraded except as consistent with State Water Board Resolution Number 68-16. The discharge to groundwater shall not exceed WQOs, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

6. PROVISIONS

6.1. Standard Provisions

6.1.1. The Discharger shall comply with all Standard Provisions included in Attachment D.

6.1.2. **Los Angeles Water Board Standard Provisions.** The Discharger shall comply with the following provisions. If there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the Water Code.

b. Odors, vectors, and other nuisances of sewage or sludge origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Los Angeles Water Board, are prohibited.

c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.

d. Collection, treatment, and disposal systems shall be operated in a manner that precludes or impedes public contact with wastewater.

e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Los Angeles Water Board.

f. The provisions of this order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

g. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 311 of the CWA, related to oil and hazardous substances liability.

h. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of stormwater to storm drain systems or other water courses under their jurisdiction, including applicable requirements in municipal stormwater management programs developed to comply with NPDES permits issued by the Los Angeles Water Board to local agencies.

i. Discharge of wastes to any point other than specifically described in this Order is prohibited and constitutes a violation thereof.

j. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the federal CWA and amendments thereto.

k. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility; and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.

l. The Discharger shall make diligent, proactive efforts to reduce Facility infrastructure vulnerability to current and future impacts resulting from climate change, including but not limited to extreme wet weather events, flooding, storm surges, and projected sea level rise when the facility is located near the ocean or discharges to the ocean.

m. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

n. A copy of these waste discharge specifications shall always be maintained and available to operating personnel at the discharge Facility.

o. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not always manned, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

p. The Discharger shall file with the Los Angeles Water Board a report of waste discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.

q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the Los Angeles Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Los Angeles Water Board, 30 days prior to taking effect.

r. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.

s. The Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

i. Name and general composition of the chemical,
ii. Frequency of use,
iii. Quantities to be used,
iv. Proposed discharge concentrations, and
v. USEPA registration number, if applicable.

t. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

u. Water Code section 13385(h)(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each serious violation. Pursuant to Water Code section 13385(h)(2), a “serious violation” is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to Water Code 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. Water Code section 13385(i) requires the Los Angeles Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three non-serious violations within that time period.

w. Pursuant to Water Code 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. Water Code 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 Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Los Angeles Water Board by telephone at (213) 620-2083 or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Los Angeles Water Board within five days, unless the Los Angeles Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-5542 to losangeles@waterboards.ca.gov. Other noncompliance requires written notification as above at the time of the normal monitoring report.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. Reopener Provisions

a. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

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

b. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity testing, monitoring of internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

c. This Order may be modified, in accordance with the provisions set forth in title 40 of the Code of Federal Regulations (40 CFR) parts 122 and 124 to include requirements for the implementation of a watershed protection management approach.

d. The Board may modify, or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have reasonable potential to cause, or contribute to adverse impacts on beneficial uses or degradation of water quality of the receiving waters.

e. This Order may also be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the Discharger for an Order modification, revocation and issuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

f. This Order may be modified, in accordance with the provisions set forth in 40 CFR parts 122 to 124, to include new minimum levels (MLs).

g. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Los Angeles Water Board may institute proceedings under these regulations to modify or revoke and reissue the Orders to conform to the toxic effluent standard or prohibition.

h. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Los Angeles Water Board will revise and modify this Order in accordance with such standards.

i. This Order may be reopened and modified to revise effluent limitations as a result of future additions or amendments to a statewide water quality control plan or the Los Angeles Region’s Basin Plan or the adoption or revision of a TMDL.

j. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to incorporate all elements contained in the State Water Board adopted Inland Surface Waters, Enclosed Bays, and Estuaries Plan (ISWEBE Plan) Toxicity Provisions following USEPA-approval of such Toxicity Provisions to be consistent with the State Water Board precedential decisions, new policies, a new state-wide plan, new laws, or new regulations.

k. Upon the request of the Permittee, the Los Angeles 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

Los Angeles Water Board determines that dilution credits, attenuation factors, or metal translators are warranted.

l. This Order may be reopened to make the necessary modifications for the Indirect Reuse and Replenishment Project (IRRP) once the Title 22 Engineering Report is approved by the State Water Resource Control Board Division of Drinking Water (DDW) and the WRR for the facility has been adopted.

m. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, new state-wide plans, new laws, or new regulations.

6.3.2. Special Studies, Technical Papers and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

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

b. Ammonia Site Specific Objective Evaluation

The Discharger shall prepare and submit an annual "Ammonia Site-Specific Objective Evaluation" report on May 15th of each year. This report will include the following:

i. Concurrent increases in hardness and sodium (measured as alkalinity) have been linked to decreases in ammonia sensitivity. Details can be found in *Arid West Water Quality Research Project Special Studies Final Report, 07-03-P-139257-0207, Relative Role of Sodium and Alkalinity vs. Hardness in Controlling Acute Ammonia Toxicity*, prepared by Parametrix Environmental Research Lab in collaboration with GEI Consultants, Chadwick Ecological Division in April 2007. A relationship consistent with these findings was observed in the LA County SSO study. Therefore, on an annual basis, receiving water hardness and alkalinity will be evaluated and compared to conditions observed from 2000 through 2007. If the current year's annual mean hardness and alkalinity is 25% lower than the 2000 through 2007 mean, the Discharger will initiate or continue quarterly receiving water chronic testing using the invertebrate *Ceriodaphnia dubia* at the downstream receiving water location 100 feet below the outfall. A reduction of 25% was determined using statistical power analyses of the 2000 through 2007 hardness and alkalinity data assuming a minimum annual sample size of 12. Results from this toxicity testing will be evaluated to determine if waste discharged ammonia is causing toxicity (see section (ii) below for details on this evaluation).

ii. Evaluation of all receiving water toxicity will be conducted to determine if waste discharged ammonia was a likely cause of any observed toxicity. If no toxicity is observed or it is determined that waste discharged ammonia is not a likely cause of observed toxicity, the Discharger will resume routine toxicity monitoring. If it is determined that observed receiving toxicity is caused by waste discharged ammonia and discharged ammonia levels were below the SSO adjusted ammonia water quality objective, the Discharger shall develop and submit a plan for reevaluating the SSO to the Executive Officer.

iii. Compare downstream ammonia measurements with calculated objectives to ensure adequate protection of beneficial uses. If it is determined that downstream receiving water ammonia objectives are not being met, the Discharger shall evaluate if waste discharged ammonia concentrations below the SSO adjusted ammonia water quality objective are responsible for the downstream objective exceedances.

iv. Sampling observations and other available information will be evaluated every two years to determine if winter spawning fish species are present in Reach 2 of the San Gabriel River. If winter spawning fish were observed, the Discharger will propose a plan to evaluate if significant numbers of early life-stage (ELS) fish are present during the period of October 1st to March 31st (ELS absent). This plan will identify appropriate methods for gathering additional information to determine if the Basin Plan ELS implementation provisions for the ammonia objective are protective of the species and life stages present.

c. Treatment Plant Capacity

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

i. The average daily flow for the month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;

ii. The best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the facilities; and,

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

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

6.3.3. Best Management Practices and Pollution Prevention

a. Stormwater Pollution Prevention Plan (SWPPP) – Not Applicable

b. Spill Clean-up Contingency Plan (SCCP)

Within 90 days of the effective date of this Order, the Discharger is required to update and submit the SCCP for the Facility, which describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or

partially treated wastewater from the Discharger's collection system or treatment facilities that reach water bodies, including dry channels and beach sands. At a minimum, the plan shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Discharger shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Discharger shall include a discussion in the annual summary report of any modifications to the Plan and the application of the Plan to all spills during the year.

c. Pollutant Minimization Program (PMP)

Reporting protocols in MRP section 10.2.4 describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in Attachment A. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Discharger shall develop and conduct a Pollutant Minimization Program (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, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the RL; or

ii. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section 10.2.4.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Los Angeles Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

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

i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy.

An annual status report that shall be sent to the Los Angeles Water Board including:

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

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

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

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

6.3.4. Construction, Operation and Maintenance Specifications

a. Certified Wastewater Treatment Plant Operator. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to California Code of Regulations (CCR), title 23, division 3, chapter 26 (Water Code sections 13625 – 13633).

b. Climate Change Effects Vulnerability Assessment and Mitigation Plan. The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfire, or other climate-related changes. The Discharger shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, and beneficial uses. The Climate Change Plan is due 12 months after effective date of this Order.

c. Alternate Power Source. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, wildfires, and other physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.

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

a. Biosolids Disposal Requirements - (Not Applicable)

b. Pretreatment Requirements

i. The Permittee has developed and implemented a Pretreatment Program that was previously submitted to the Los Angeles Water Board. This Order requires

implementation of the approved Pretreatment Program. Any violation of the Pretreatment Program will be considered a violation of this Order.

ii. In 1972, the County Sanitation District of Los Angeles County's (Sanitation District) Board of Directors adopted the Wastewater Ordinance. The purpose of this Ordinance is to establish controls on users of the Sanitation District's sewerage system in order to protect the environment and public health, and to provide for the maximum beneficial use of the Sanitation District's facilities. This Wastewater Ordinance, as amended July 1, 1998, shall supersede all previous regulations and policies of the Sanitation Districts' governing items covered in this Ordinance. Specifically, the provisions of this Ordinance shall supersede the Districts' "Policy Governing Use of District Trunk Sewers" dated December 6, 1961 and shall amend the Sanitation Districts' "An Ordinance Regulating Sewer Construction, Sewer Use and Industrial Wastewater Discharges," dated April 1, 1972, and as amended July 1, 1975, July 1, 1980, July 1, 1983, and November 1, 1989. An extensive review of the JOS local limits was completed in November 2006; the report outlining the full evaluation was forwarded to the Los Angeles RWQCB on November 5, 2006. In April 2018, JOS submitted a local limit evaluation to the Los Angeles Water Board following the NPDES permit adoption of the Joint Water Pollution Control Plant. In that evaluation, JOS found that changes to existing local limits did not appear to be necessary to meet the limitations.

iii. Any change to the Pretreatment Program shall be reported to the Los Angeles Water Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR § 403.18.

iv. 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 7 of Attachment D, Additional Provisions-Notification Levels, of this Order, the Discharger shall provide adequate notice of any new introduction of pollutants or substantial change in the volume or character of pollutants from industrial discharges which were not included in the permit application. Pursuant to 40 CFR § 122.44(j)(1), the Discharger shall annually identify and report, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR § 403.

v. The Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order and shall submit a written technical report as required under section B.1 of Attachment H. The San Jose Creek WRP is part of the Joint Outfall System (JOS), consisting of the Joint Water Pollution Control Plant (JWPCP) and the upstream plants. In the reevaluation of the local limits, the Discharger shall consider the effluent limitations contained in this Order, the contributions from the upstream WRPs in the JOS, and other relevant factors due to the interconnection of the Districts' WRPs within the JOS. The Discharger shall submit to the Los Angeles Water Board revised local limits, as necessary, for Los Angeles Water Board approval based on the schedule specified in the NPDES Permit issued to the JWPCP. In addition, the Discharger shall consider collection

system overflow protection from such constituents as large debris, oil and grease, etc.

vi. The Discharger shall comply with requirements contained in Attachment H – Pretreatment Reporting Requirements.

c. Collection System Requirements

The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41(e)). The Discharger must report any non-compliance (40 CFR § 122.41(*l*)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 CFR § 122.41(d)). On October 20, 2006, the Permittee submitted a Notice of Intent to enroll under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order Number 2006-0003-DWQ.

d. Filter Bypass

Conditions pertaining to bypass are contained in Attachment D, Section 1.7 Bypass. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters as a necessary means to avoid loss of life, personal injury or severe property damage. There are no feasible alternatives to this diversion. These anticipated discharges are approved under the bypass conditions when all storage has been utilized and the resulting combined discharge of fully treated (tertiary) and partially treated (secondary) wastewater complies with the effluent and receiving water limitations in this Order. The ROWD constitutes notice of these anticipated bypasses.

6.3.6. Spill Reporting Requirements

a. Initial Notification

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

i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than two hours after becoming aware of the release.

ii. In accordance with the requirements of Water Code section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as

possible, but not later than two hours after becoming aware of the release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550. In addition, the Permittee shall notify other interested persons of any such sewage spill by maintaining an email list of those interested persons that have requested such notification.

iii. The Discharger shall notify the Los Angeles Water Board of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two hours after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal OES and the local health officer or the director of environmental health with jurisdiction over the affected water body. The phone number for reporting these releases of sewage to the Los Angeles Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Los Angeles Water Board are (213) 305-2284 and (213) 305-2253.

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

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

b. Monitoring

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

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples (if feasible, accessible, and safe) for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). If a grab sample cannot be obtained due to accessibility or safety concerns that cannot be addressed with the appropriate personal protective equipment or following proper sampling procedures, the sample shall be obtained as soon as it becomes safe to do so. The Discharger shall analyze the samples for total coliform, *E. coli* (if total coliform tests positive)*, Enterococcus* (if spill reaches the marine waters, where the salinity is greater than 1 part per thousand more than 5 percent of time), and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). Daily monitoring shall be conducted from the time the spill is known until the results of two consecutive sets of

bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

c. Reporting

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

i. As soon as possible, but not later than twenty-four hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to the Los Angeles Water Board by email at augustine.anijielo@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with Water Code section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

- Agency, NPDES Number, Order Number, and MRP CI Number, if applicable;
- The location, date, and time of the discharge;
- The water body that received the discharge;
- A description of the level of treatment of the sewage or other waste discharged;
- An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;
- The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,
- The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

ii. A written preliminary report five business days after disclosure of the incident is required. Submission to the Los Angeles Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to the Los Angeles Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a statewide General WDRs for Sanitary Sewer Systems (SSS WDRs), may be submitted to the Los Angeles Water Board to satisfy this requirement). The written report shall document the information required in paragraph d below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer for just cause can grant an extension for submittal of the final written report.

iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power

generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. Records

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

i. The date and time of each spill, overflow, or bypass;
ii. The location of each spill, overflow, or bypass;
iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section 6.3.6.b;
iv. The cause of each spill, overflow, or bypass;
v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
vi. Any mitigation measures implemented;
vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,
viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSS WDRs.

e. Activities Coordination

Although not required by this Order, the Los Angeles Water Board expects that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program, (ii) a Municipal Separate Storm Sewer Systems (MS4) NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements, and (iii) the SSS WDRs or subsequent updates. The Los Angeles Water Board also expects the POTW's owners/operators to consider coordination with other agencies regarding the potential for the permissive integration of the MS4 with the wastewater collection system.

f. Consistency with SSS WDRs

The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code sections 1311, 1342). The State Water Board adopted *General Waste Discharge Requirements for Sanitary Sewer Systems*, (WQ Order Number 2006-0003-DWQ; SSS WDRs) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSS WDRs requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSS WDRs, develop and implement sewer system management plans,

and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSS WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order in sections 6.3.3.b. (SCCP Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Los Angeles Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs are considered the minimum thresholds (see finding 11 of State Water Board Order Number 2006-0003-DWQ). To encourage efficiency, the Los Angeles Water Board will accept the documentation prepared by the permittees under the SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

6.3.7. Compliance Schedules

a. The compliance schedule and the interim limit in Section 4.1.2 of this Order are authorized under Section 1.e. of the State Water Board's Resolution 2008-0025 - Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits (Compliance Schedule Policy).

b. The Discharger shall notify the Los Angeles Water Board in a written compliance report, no later than 14 days following each interim milestone date, of its compliance or noncompliance with the interim requirements.

c. In order to monitor compliance with the interim and final effluent limitations for temperature, the Discharger shall monitor the influent, effluent, and receiving water for temperature at the frequencies required in Tables E-2 and E-3. Each result shall be reported in the monthly report to track progress in achieving compliance with the final effluent limitations.

d. The Permittee shall submit a PMP described in section 6.3.3.d to the Los Angeles Water Board for Executive Officer approval within 60 days of the effective date of this permit.

e. The Permittee may be subject to enforcement action for failure to complete the tasks by the given milestone dates, as specified in Table 13.

Table 13. Compliance Schedule & Milestone Dates

Task	Completion Date
Submit and Begin Implementation of Pollution Prevention Plan (PPP) for Source Control	February 1, 2022
Release the Request for Proposal to Retain Consultant to Evaluate Temperature Impacts in the Watershed and Management Options	July 31, 2022
Finalize the Technical Workplan	July 31, 2023
Prepare a Technical Workplan Progress Report	July 31, 2024
Complete Implementation of Technical Workplan	July 31, 2025
Select Preferred Project and Begin Potential Regulatory Approval Process	May 1, 2026
Begin Preliminary Design	November 30, 2026
Complete Preliminary Design	November 30, 2027
Complete Environmental Review	November 30, 2028
Design Preferred Project	November 30, 2029
Issue Notice to Proceed for Project Work	November 30, 2030
Complete Preferred Project	November 30, 2031

7. COMPLIANCE DETERMINATION

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

7.1. General

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

7.2. Multiple Sample Data

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

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

7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an

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

7.3. Average Monthly Effluent Limitation (AMEL)

If the average (or when applicable, the median determined by subsection 7.2 above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation for the purpose of calculating mandatory minimum penalties, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month) in cases where discretionary administrative civil liabilities are appropriate. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month with respect to the AMEL.

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

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

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

7.4. Average Weekly Effluent Limitation (AWEL)

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

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

7.5. Maximum Daily Effluent Limitation (MDEL)

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

7.6. Instantaneous Minimum Effluent Limitation

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a potential violation will be flagged, and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

7.7. Instantaneous Maximum Effluent Limitation

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a potential violation will be flagged, and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

7.8. Six-month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged, and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is taken, no compliance determination can be made for the six-month median effluent limitation.

7.9. Median Monthly Effluent Limitation (MMEL)

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

7.10. Chronic Toxicity

The discharge is subject to determination of “Pass” or “Fail” and “Percent Effect” from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (IWC) response ≤0.75 × Mean control response. A test result that rejects this null hypothesis accepts the alternative hypothesis, which means that there is no exceedance of the chronic toxicity water quality objective, therefore, the result is reported as “Pass”. A test result that does not reject this null hypothesis is equivalent to an exceedance of the chronic toxicity water quality objective and 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 Whole Effluent Toxicity (WET), only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”)). The Welch’s t-test employed by the TST statistical approach is an adaptation of Student’s t-test and is used with two samples having unequal variances

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed at the IWC for the reproduction endpoint using the TST statistical approach, results in “Fail” and the “Percent Effect” of the survival endpoint is ≥0.50.

The 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” for any endpoint.

If a chronic aquatic toxicity routine monitoring test results in a “Fail” at the IWC, the Permittee shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests would constitutes a violation of the chronic toxicity MMEL.

The chronic toxicity MDEL and MMEL are set at the IWC for the discharge (100% effluent) and expressed in units of the TST statistical approach (“Pass” or “Fail”, “Percent Effect”). All NPDES effluent compliance monitoring for the chronic toxicity MDEL and MMEL shall be reported using only the 100% effluent concentration and negative control, expressed in units of the TST, using the *Ceriodaphnia dubia*, which was determined to be the most sensitive species for the San Jose Creek WRP discharge. 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). However, if the USEPA approves the

Alternative Test Procedure, the Discharger may use a two-concentration test design. The Los Angeles Water Board's review of reported toxicity test results will not include review of concentration-response patterns as appropriate (see Fact Sheet discussion at 4.3.6.). As described in the bioassay laboratory audit correspondence from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observable Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach must be consistent with *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013). The Los Angeles Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Discharger, the USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program (ELAP) as needed. The Board may consider the results of any TIE/TRE studies in an enforcement action.

7.11. Percent Removal

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

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

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

7.12. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

7.13. Compliance with single constituent effluent limitations

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.

7.14. 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.

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

Compliance with the dioxin effluent limitation shall be determined based on 2,3,7,8-TCDD alone. However, TCDD equivalents shall be monitored and calculated using the following formula, where the MLs, and toxicity equivalency factors (TEFs) are as provided in the table below. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating TCDD equivalents, the Discharger shall set congener concentrations below the minimum levels to zero. USEPA method 1613 may be used to analyze dioxin and furan congeners.

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

where:
Ci = individual concentration of a dioxin or furan congener
TEFi = individual TEF for a congener

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

7.16. Compliance with Gross Beta/photon Emitters

The monthly average effluent limitation for gross beta/photon is equal to 4 millirem/year with a screening level of 50 picoCuries per liter (pCi/L). Due to naturally occurring Potassium-40, the results of the Potassium-40 may be subtracted from the total gross beta activity to determine if the screening level is exceeded. The Potassium-40 beta particle activity must be calculated by multiplying elemental potassium concentration (in mg/L) by a factor of 0.82 to determine activity from Potassium-40. The Potassium-40 must be analyzed from the same or equivalent sample used for the gross beta analysis.

If the gross beta particle activity minus the naturally occurring Potassium-40 is less than or equal to 50 pCi/L, the facility is in compliance and the value shall be reported as <4 millirem/year. If the gross beta particle activity minus the naturally occurring Potassium-40 beta particle activity exceeds the screening level, the Discharger must have the samples further analyzed for the *individual* nuclides. The calculation for the sum of the fractions is presented below.

The maximum contaminant level (MCL) for gross beta/photon emitters is equal 4 millirem per year. A millirem is a dose of energy to the body or any internal organ. USEPA regulates 179 man-made nuclides, and each of them has a concentration of radiation measured in pCi/L, which produces the 4 millirem dose. These concentrations are listed on table, *Derived Concentrations of (pCi/L) of Beta and Photon Emitters in Drinking Water,* which shall be used to determine compliance.

Derived Concentrations (pCi/l) of Beta and Photon Emitters in Drinking Water

Yielding a Dose of 4 mrem/yr to the Total Body or to any Critical Organ as defined in NBS Handbook 69

Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l	Nuclide	pCi/l
H-3	20,000	Ni-65	300	Nb-95	300	Sb-124	60	Nd-147	200	Os-191	600
Be-7	6,000	Cu-64	900	Nb-97	3,000	Sb-125	300	Nd-149	900	Os-191m	9,000
C-14	2,000	Zn-65	300	Mo-99	600	Te-125m	600	Pm-147	600	Os-193	200
F-18	2,000	Zn-69	6,000	Tc-96	300	Te-127	900	Pm-149	100	Ir-190	600
Na-22	400	Zn-69m	200	Tc-96m	30,000	Te-127m	200	Sm-151	1,000	Ir-192	100
Na-24	600	Ga-72	100	Tc-97	6,000	Te-129	2,000	Sm-153	200	Ir-194	90
Si-31	3,000	Ge-71	6,000	Tc-97m	1,000	Te-129m	90	Eu-152	200	Pt-191	300
P-32	30	As-73	1,000	Tc-99	900	Te-131m	200	Eu-154	60	Pt-193	3,000
S-35 inorg	500	As-74	100	Tc-99m	20,000	Te-132	90	Eu-155	600	Pt-193m	3,000
Cl-36	700	As-76	60	Ru-97	1,000	I-126	3	Gd-153	600	Pt-197	300
Cl-38	1,000	As-77	200	Ru-103	200	I-129	1	Gd-159	200	Pt-197m	3,000
K-42	900	Se-75	900	Ru-105	200	I-131	3	Tb-160	100	Au-196	600
Ca-45	10	Br-82	100	Ru-106	30	I-132	90	Dy-165	1,000	Au-198	100
Ca-47	80	Rb-86	600	Rh-103m	30,000	I-133	10	Dy-166	100	Au-199	600
Sc-46	100	Rb-87	300	Rh-105	300	I-134	100	Ho-166	90	Hg-197	900
Sc-47	300	Sr-85 m	20,000	Pd-103	900	I-135	30	Er-169	300	Hg-197m	600
Sc-48	80	Sr-85	900	Pd-109	300	Cs-131	20,000	Er-171	300	Hg-203	60
V-48	90	Sr-89	20	Ag-105	300	Cs-134	80	Tm-170	100	Tl-200	1,000
Cr-51	6,000	Sr-90	8	Ag-110m	90	Cs-134m	20,000	Tm-171	1,000	Tl-201	900
Mn-52	90	Sr-91	200	Ag-111	100	Cs-135	900	Yb-175	300	Tl-202	300
Mn-54	300	Sr-92	200	Cd-109	600	Cs-136	800	Lu-177	300	Tl-204	300
Mn-56	300	Y-90	60	Cd-115	90	Cs-137	200	Hf-181	200	Pb-203	1,000
Fe-55	2,000	Y-91	90	Cd-115m	90	Ba-131	600	Ta-182	100	Bi-206	100
Fe-59	200	Y-91m	9,000	In-113m	3,000	Ba-140	90	W-181	1,000	Bi-207	200
Co-57	1,000	Y-92	200	In-114m	60	La-140	60	W-185	300	Pa-230	600
Co-58	300	Y-93	90	In-115	300	Ce-141	300	W-187	200	Pa-233	300
Co-58m	9000	Zr-93	2,000	In-115m	1,000	Ce-143	100	Re-186	300	Np-239	300
Co-60	100	Zr-95	200	Sn-113	300	Ce-144	30	Re-187	9,000	Pu-241	300
Ni-59	300	Zr-97	60	Sn-125	60	Pr-142	90	Re-188	200	Bk-249	2,000
Ni-63	50	Nb-93m	1,000	Sb-122	90	Pr-143	100	Os-185	200		

The sum of the fraction method is used because each photon emitter targets a different organ of the body, which results in a different magnitude of risk. The sum of the beta and photon emitters shall not exceed 4 millirem/year (40 CFR section 141.66(d)(2).

Each nuclide has a different concentration that produces 4 millirem dose because different radionuclides have different energy levels. Some nuclides need to be in a higher concentration to give the same 4 millirem dose.

The laboratory shall measure the nuclide concentration in the water and compare this result to the concentration allowed for that particular nuclide (see table below). The comparison results in a fraction. This is shown in calculation below:

$$\text{Fraction of the maximum 4 millirem/year exposure limit} = \frac{pCi/L\ found\ in\ sample\ (from\ laboratory\ results)}{pCi/L\ equivalent\ from\ 4\ millirem\ of\ exposure\ (from\ conversion\ table)}$$

Each fraction must then be converted to a dose equivalent of 4 millirem/year by multiplying the fraction by 4. The results for each emitter must be summed to determine compliance.

A sample calculation is presented in the table below:

---	X	Y	X/Y	4(X/Y)
Emitter	Lab Analysis (pCi/L)	Conversion from table (pCi/4millirem)	Calculate Fraction	Calculate Total (millirem)
Cs-134	5,023	20,000	0.25115	1.0
Cs-137	30	200	0.150	0.6
Sr-90	4	8	0.5	2.0
I-131	2	3	0.7	2.8
Sum of the Fractions	---	---	1.60115	6.4

In the example above, the system would be considered in violation of the gross beta/photon effluent limitation because the “sum-of-the-fractions” is 6.4 millirem, which means that the sum of the annual dose equivalent to the total body, or to any internal organ, exceeds 4 millirem/year.

7.17. Mass Emission Rate

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

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

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

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

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

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

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

7.18. Bacterial Standards and Analysis

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

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

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

7.18.2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.

7.18.3. Detection methods used for coliforms (total) shall be those presented in Table 1A of 40 CFR part 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR part 136, or improved methods have been determined by the Executive Officer and/or USEPA.

7.18.4. Detection methods used for 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.

7.19 Single Operational Upset (SOU)

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

7.19.2. An SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.

7.19.3. A permittee may assert SOU to limit liability only for those violations which the Permittee submitted notice of the upset as required in Provision 5.5.2.b. of Attachment D – Standard Provisions.

7.19.4. For purpose outside of Water Code section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for permittees to assert the SOU limitation of liability, and

the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).

7.19.5. For purpose of Water Code 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 Water Code section 13385 (f)(2).

ATTACHMENT A – DEFINITIONS

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

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

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 regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 C.F.R. Part 503.

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

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

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

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

arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

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

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

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

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

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

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

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

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

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

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

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

Maximum Daily Flow
The maximum daily flow means the maximum instantaneous flow of the day.

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

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

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

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

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

PCBs (polychlorinated biphenyls) as Aroclors
The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

PCBs as Congeners
The sum of the following 41 individually quantified PCB congeners or mixtures of isomers of a single congeners in a co-elution: PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

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

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

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board) or Los Angeles Water Board.

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

where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

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

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

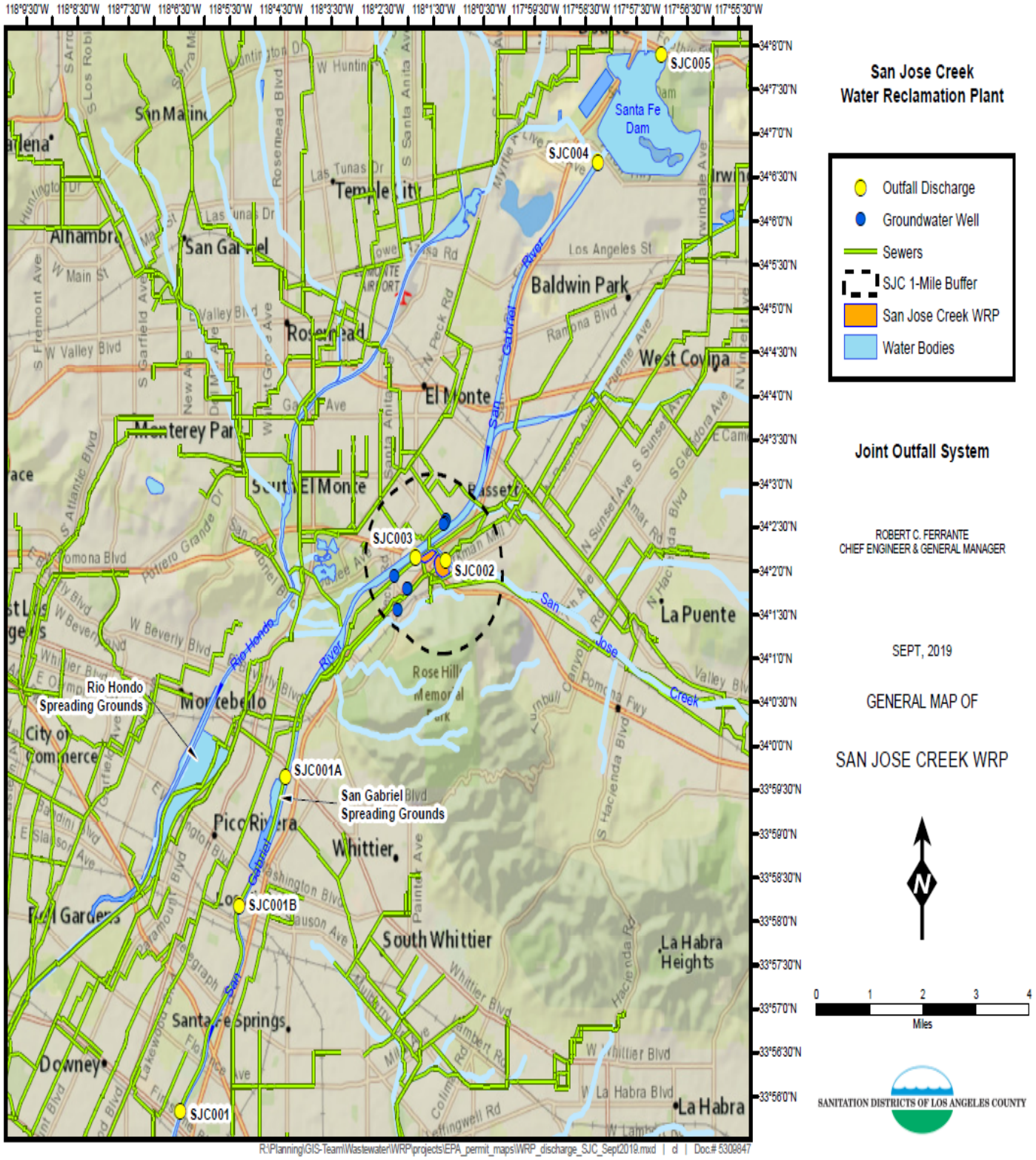
$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where: x is the observed value; μ is the arithmetic mean of the observed values; and n is the number of samples.

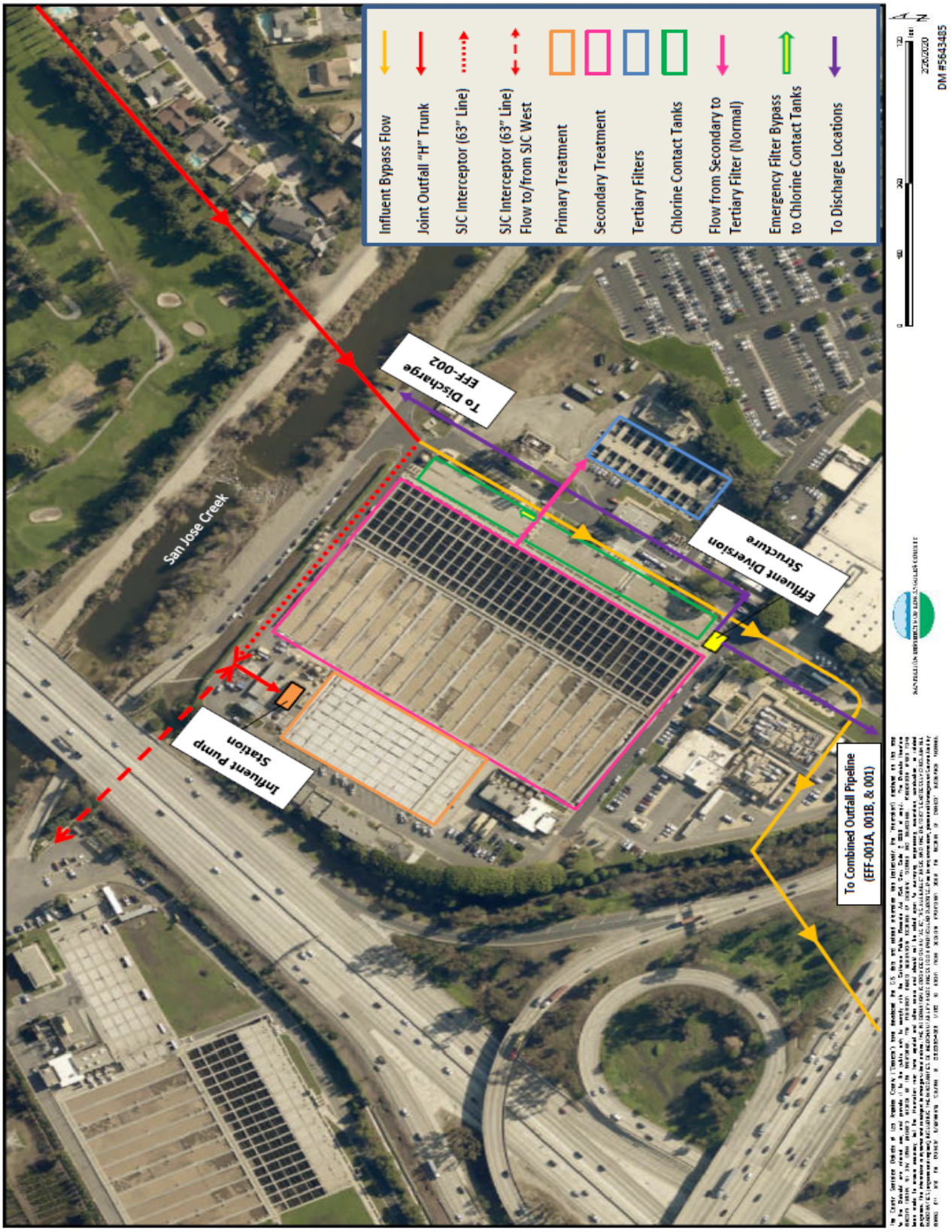
Statistical Threshold Value (STV)
The STV for the bacteria water quality objectives is a set value that approximates the 90th percentile of the water quality distribution of a bacterial population.

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

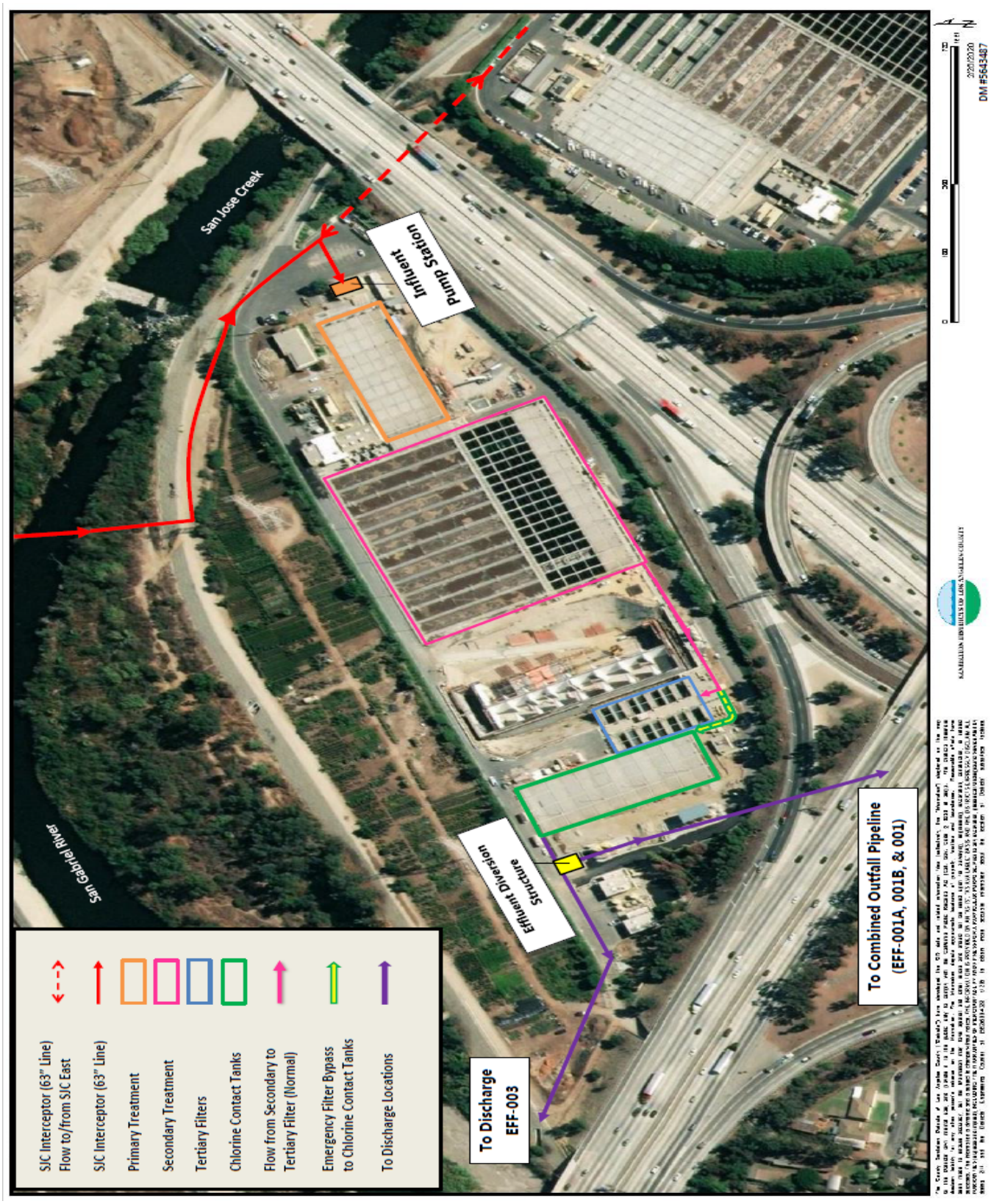
ATTACHMENT B1 – MAP OF SAN JOSE CREEK WRP, OUTFALL LOCATIONS, AND SURROUNDING AREA



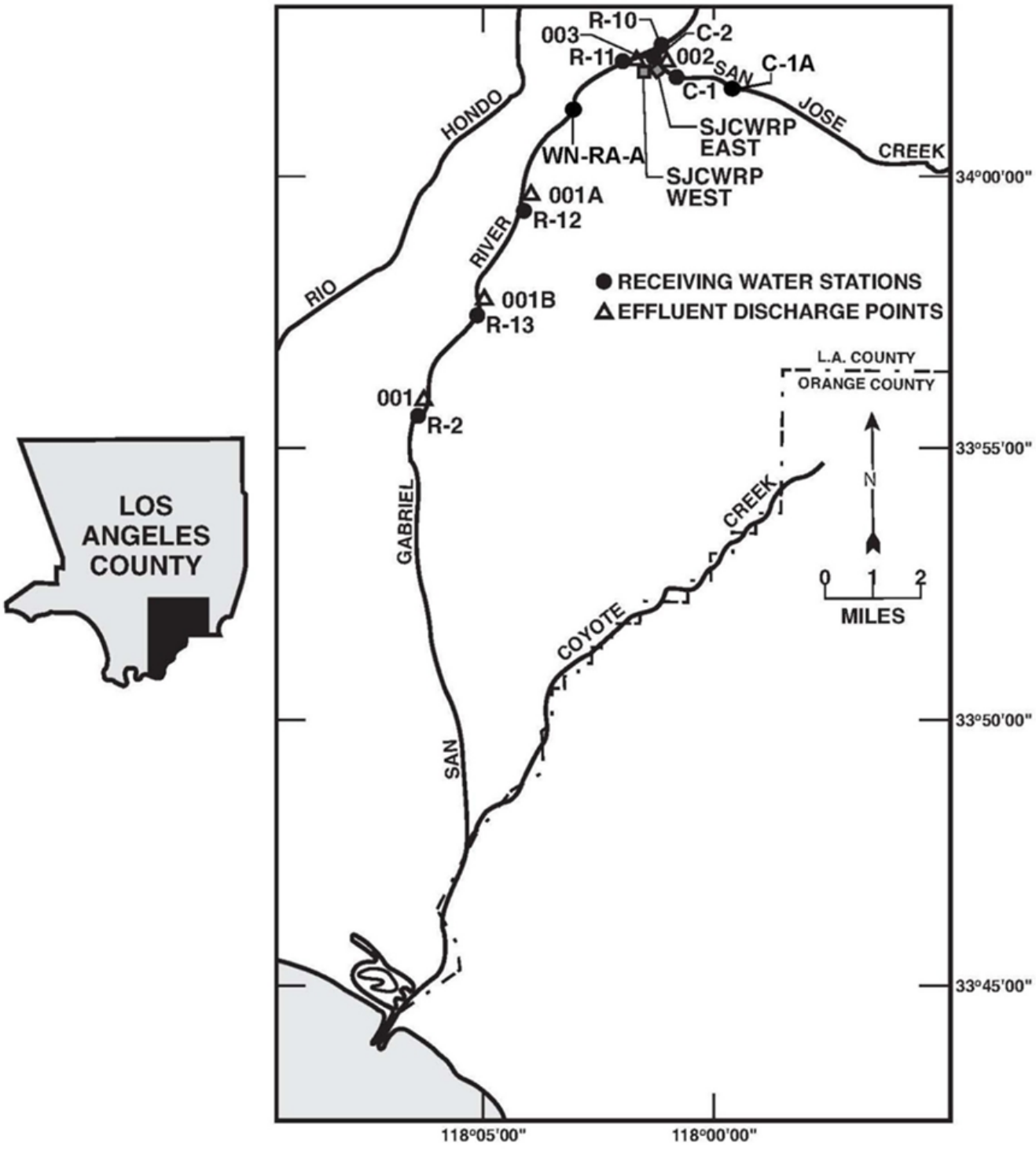
ATTACHMENT B 2 –SAN JOSE CREEK WRP EAST SITE LAYOUT



ATTACHMENT B 3 – SAN JOSE CREEK WRP WEST SITE LAYOUT

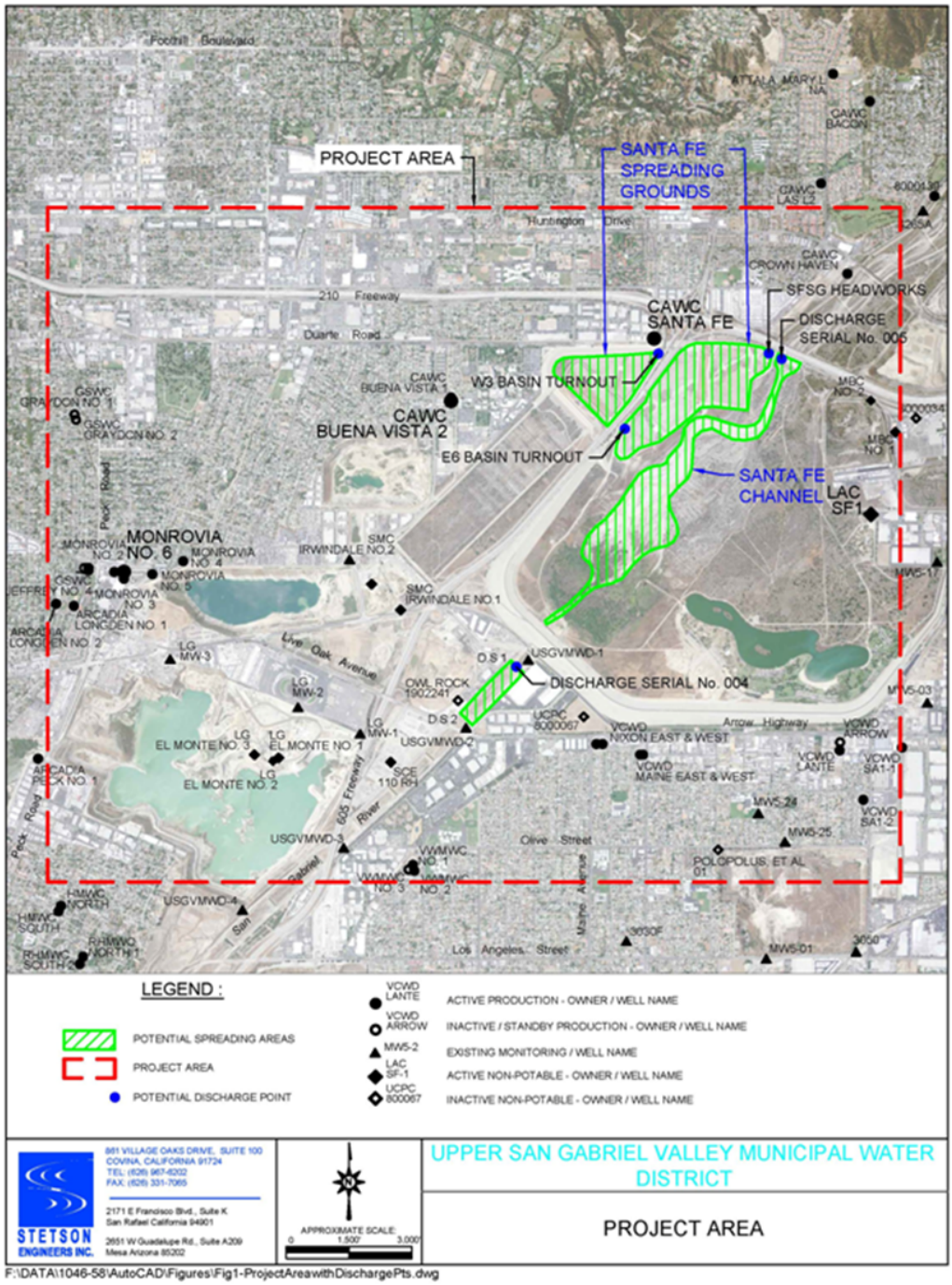


ATTACHMENT B 4 – MAP OF SAN JOSE CREEK WRP INCLUDING EFFLUENT DISCHARGE AND RECEIVING WATER MONITORING LOCATIONS



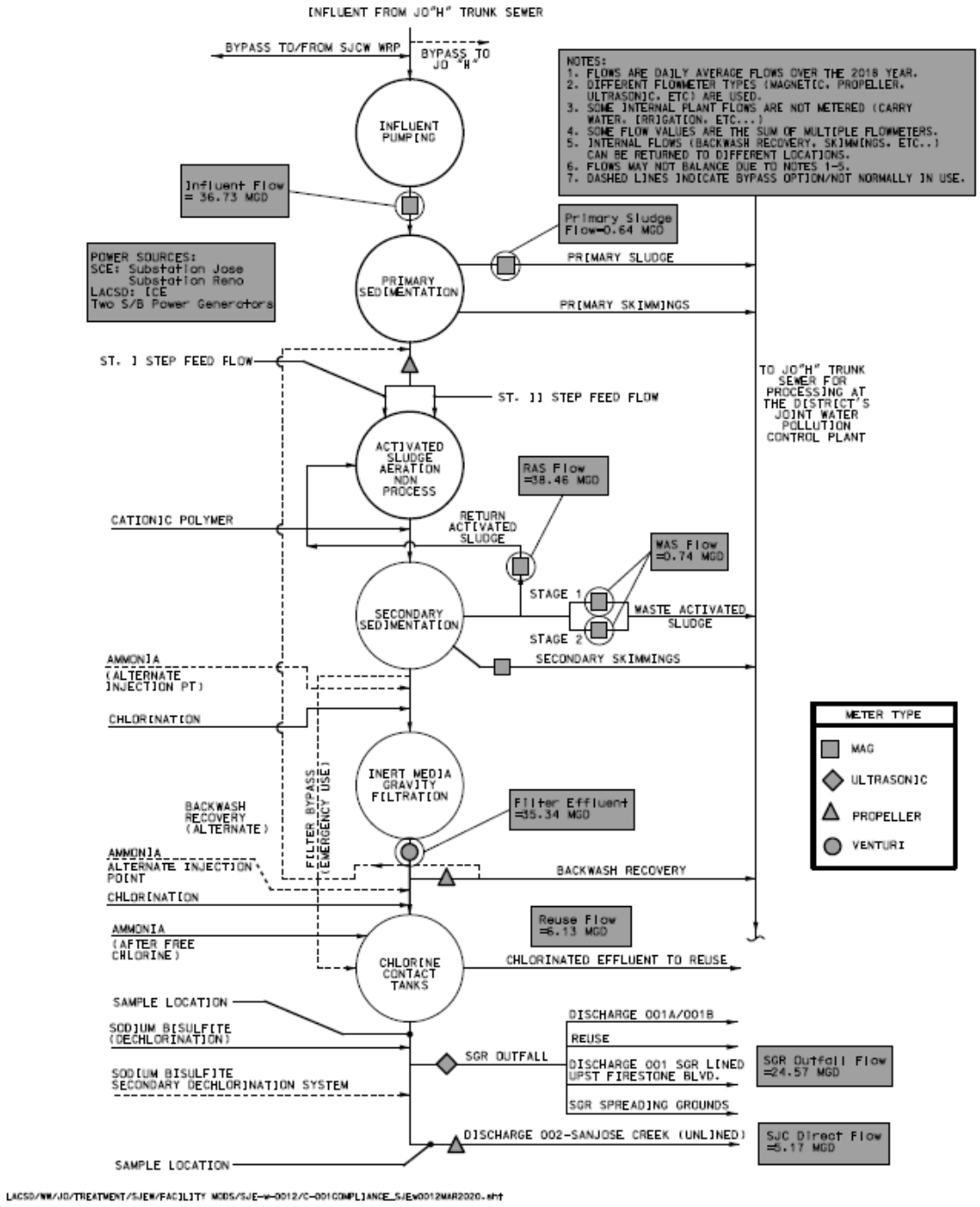
ATTACHMENT B 5 – MAP OF INDIRECT REUSE AND REPLENISHMENT PROJECT (IRRP)

FIGURE 1

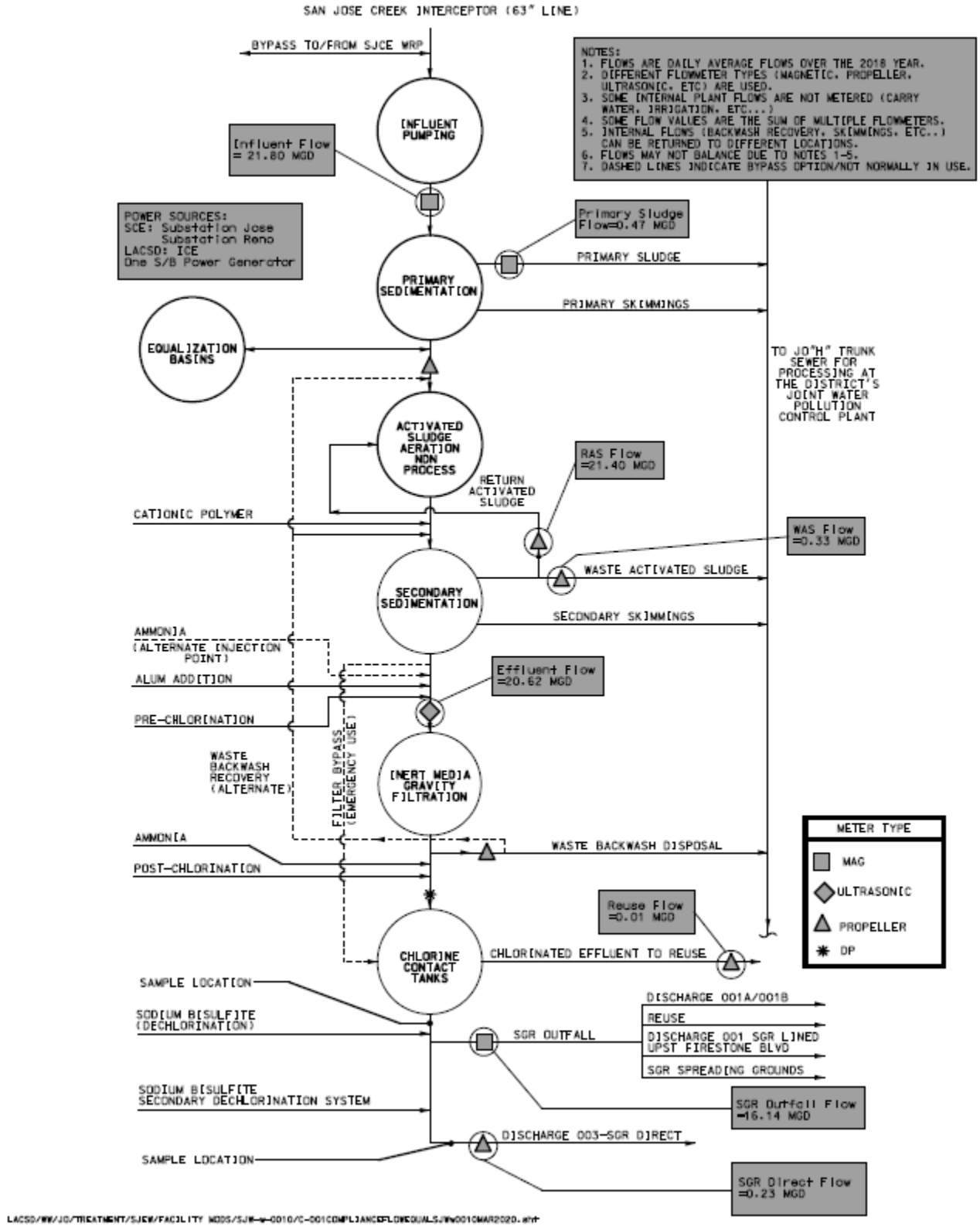


F:\DATA\1046-58\AutoCAD\Figures\Fig1-ProjectAreawithDischargePts.dwg

ATTACHMENT C1 – FLOW SCHEMATIC – SAN JOSE CREEK EAST WRP



ATTACHMENT C 2 – FLOW SCHEMATIC – SAN JOSE CREEK WEST WRP



ATTACHMENT D – STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

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

1.1.2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

1.2. Need to Halt or Reduce Activity Not a Defense

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

1.3. Duty to Mitigate

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

1.4. Proper Operation and Maintenance

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

1.5. Property Rights

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

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

1.6. Inspection and Entry

The Discharger shall allow the Los Angeles Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be

required by law, to (33 U.S.C. § 1318(a)(B); 40 CFR § 122.41(i); Water Code, §§ 13267, 13383):

1.6.1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(i); 40 CFR § 122.41(i)(1); Water Code, §§ 13267, 13383);

1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(2); Water Code, §§ 13267, 13383);

1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(B)(ii); 40 CFR § 122.41(i)(3); Water Code, §§ 13267, 13383); and

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

1.7. Bypass

1.7.1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)

b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)

1.7.2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 CFR § 122.41(m)(2).)

1.7.3. Prohibition of bypass. Bypass is prohibited, and the Los Angeles Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Los Angeles Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

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

1.7.5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass. As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). As of December 21, 2023, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

1.8. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1).)

1.8.1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance 1.8.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2).)

1.8.2 Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 CFR § 122.41(n)(3)(iv).)

1.8.3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f).)

2.2. Duty to Reapply

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

2.3. Transfers

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

3. STANDARD PROVISIONS – MONITORING

3.1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1).)

3.2. Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

3.2.1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

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

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

4. STANDARD PROVISIONS – RECORDS

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

4.2. Records of monitoring information shall include:

4.2.1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));

4.2.2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));

4.2.3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));

4.2.4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));

4.2.5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and

4.2.6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

4.3. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):

4.3.1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and

4.3.2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

The Discharger shall furnish to the Los Angeles Water Board, State Water Board, or USEPA within a reasonable time, any information which the Los Angeles Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Los Angeles Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); Water Code, §§ 13267, 13383.)

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Los Angeles Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with

Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 CFR § 122.41(k).)

5.2.2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 CFR § 122.22(a)(3).)

5.2.3. All reports required by this Order and other information requested by the Los Angeles Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting 5.2.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting 5.2.2 above (40 CFR § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

c. The written authorization is submitted to the Los Angeles Water Board and State Water Board. (40 CFR § 122.22(b)(3).)

5.2.4. If an authorization under Standard Provisions – Reporting 5.2.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting 5.2.3 above must be submitted to the Los Angeles Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5.2.5. Any person signing a document under Standard Provisions – Reporting 5.2.2 or 5.2.3 above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR § 122.22(d).)

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and

40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR § 122.22(e).)

5.3. Monitoring Reports

5.3.1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(*l*)(4).)

5.3.2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Los Angeles Water Board or State Water Board. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(*l*)(4)(i).)

5.3.3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Los Angeles Water Board or State Water Board. (40 CFR § 122.41(*l*)(4)(ii).)

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

5.4. Compliance Schedules

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

5.5. Twenty-Four Hour Reporting

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

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

As of December 21, 2023, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 The reports shall comply with 40 CFR part 3, 40 C.F.R. section 122.22, and 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(*l*)(6)(i).)

5.5.2. The following shall be included as information that must be reported within 24 hours:

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

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

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

5.6. Planned Changes

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

5.6.1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(*l*)(1)(i)); or

5.6.2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(*l*)(1)(ii).)

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

5.7. Anticipated Noncompliance

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

5.8. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information

described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 CFR part 127. The Los Angeles Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(*l*)(7).)

5.9. Other Information

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

5.10. Initial Recipient for Electronic Reporting Data

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. USEPA will update and maintain this listing. (40 CFR § 122.41(*l*)(9).)

6. STANDARD PROVISIONS – ENFORCEMENT

6.1. The Los Angeles Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

6.2. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who *negligently* violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who *knowingly* violates such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who *knowingly* violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall

be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions (40 CFR § 122.41(a)(2); Water Code section 13385 and 13387).

6.3. Any person may be assessed an administrative penalty by the Administrator of USEPA, the Los Angeles Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000. (40 CFR § 122.41(a)(3))

6.4. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both. (40 CFR § 122.41(j)(5)).

6.5. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both. (40 CFR § 122.41(k)(2)).

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. Publicly Owned Treatment Works (POTWs)

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

7.1.1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR § 122.42(b)(1)); and

7.1.2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 CFR § 122.42(b)(2).)

7.1.3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Section 308(a) of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorize the Los Angeles Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

1. GENERAL MONITORING PROVISIONS

1.1. All samples shall be representative of the waste discharge under conditions of peak load. Results of quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-10 of the MRP.

1.2. Pollutants, except those analyzed in the field, shall be analyzed using the analytical methods described in 40 CFR parts 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by the Los Angeles Water Board or the State Water Board.

1.3. Laboratory Certification. Laboratories analyzing samples shall be certified by the State Water Resources Control Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) in accordance with Water Code 13176 and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Los Angeles Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.

1.4. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All QA/QC analyses must be run on the same dates that samples are analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Los Angeles Water Board. Proper chain of custody procedures must be followed, and a copy of that documentation shall be submitted with the monthly report.

1.5. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to ensure accuracy of measurements or shall ensure that both equipment activities will be conducted.

1.6. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed, and the method or procedure used must be specified in the monitoring report.

1.7. Each monitoring report must affirm in writing that “with the exception of field test, all analyses were conducted at a laboratory certified for such analyses, under the Environmental Laboratory Accreditation Program (ELAP) through the State Water Resources Control Board, Division of Drinking Water; or, were approved by the Executive Officer in accordance with current USEPA guideline procedures or as specified in this Monitoring and Reporting Program.”

1.8. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or

reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Resources Control Board (State Water Board) in the *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, (State Implementation Policy or SIP),* February 9, 2005, Appendix 4. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported ML.

1.9. The Discharger shall select the analytical method that provides an ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section 1.11 below. If the effluent limitation is lower than all the MLs in Appendix 4 of the SIP, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.

1.10. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section 1.11 below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix 4 of the SIP.

1.11. In accordance with section 2.4.3 of the SIP, the Los Angeles Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix 4 of the SIP to be included in the Discharger's permit in any of the following situations:

1.11.1. When the pollutant under consideration is not included in Appendix 4 of the SIP;

1.11.2. When the Discharger and the Los Angeles Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 CFR part 136;

1.11.3. When the Discharger agrees to use an ML that is lower than those listed in Appendix 4;

1.11.4. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix 4 and proposes an appropriate ML for the matrix; or,

1.11.5. When the Discharger uses a method, for which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, the Los Angeles Water Board, and the State Water Board shall agree

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

If there is any conflict between foregoing provisions and the SIP, the provisions stated in the SIP (section 2.4) shall prevail.

1.12. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this MRP using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with limitations set forth in this Order.

1.13. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Los Angeles Water Board upon request and a spill summary shall be included in the annual summary report.

1.14. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.

1.14.1. Detection methods used for coliforms (total) shall be those presented in Table 1A of 40 CFR part 136 unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR part 136.

1.14.2. Detection methods used for *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 Los Angeles Water Board to be appropriate.

2. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	San Jose Creek East Facility Influent Monitoring Station INF-001	The influent monitoring location shall be located at each point of inflow to the sewage treatment plant and located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	San Jose Creek West Facility Influent Monitoring Station INF-002	The influent monitoring location shall be located at each point of inflow to the sewage treatment plant and located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained.
001, 001A, 001B	San Jose Creek East and West Facilities Combined Effluent Monitoring Station EFF-001, EFF-001A, EFF-001B	The effluent sampling station shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained. This location represents the flow-weighted calculations for the combined effluent to Discharge Point Nos. 001, 001A, or 001B. No sampling or continuous recorder monitoring is done at this location. Flow weighting calculation of required parameters is performed using samples taken from EFF-002 and EFF-003. Latitude: 33.930524 N Longitude: -118.107743 W
001	San Jose Creek East and West Facilities Combined Effluent Monitoring Station EFF-001X	The effluent sampling station for total residual chlorine, pH, and temperature is located at outfall for the Discharge point 001. The total residual chlorine, pH, and temperature limitations shall be applied to the effluent sample collected at this point. Latitude: 33.930613 N Longitude: -118.107791 W
001A	San Jose Creek East and West Facilities Combined Effluent Monitoring Station EFF-001AX	The effluent sampling station for total residual chlorine, pH, and temperature is located at outfall for the Discharge point 001A. The total residual chlorine, pH, and temperature limitations shall be applied to the effluent sample collected at this point. Latitude: 33.994405 N Longitude: -118.073476
001B	San Jose Creek East and West Facilities Combined Effluent Monitoring Station EFF-001BX	The effluent sampling station for total residual chlorine, pH, and temperature is located at outfall for the Discharge point 001B. The total residual chlorine, pH, and temperature limitations shall be applied to the effluent sample collected at this point. Latitude: 33.969771 N

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
		Longitude: -118.088866 W
002	San Jose Creek East Facility Effluent Monitoring Station EFF-002	The effluent sampling station shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained from the San Jose Creek East WRP. Latitude: 34.035446 N Longitude: -118.021100 W
002	San Jose Creek East Facility Effluent Monitoring Station EFF-002X	The effluent sampling station for total residual chlorine, pH and temperature shall be located downstream of the dechlorination process and inside the San Jose Creek East WRP. The total residual chlorine and temperature limitations shall be applied to the effluent sample collected at this point.
003	San Jose Creek West Facility Effluent Monitoring Station EFF-003	The effluent sampling station shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained from the San Jose Creek West WRP. Latitude: 34.036081 N Longitude: -118.030631 W
003	San Jose Creek West Facility Effluent Monitoring Station EFF-003X	The effluent sampling station for total residual chlorine, pH, and temperature shall be located downstream of the dechlorination process and inside the San Jose Creek West WRP. The total residual chlorine and temperature limitations shall be applied to the effluent sample collected at this point.
004	San Jose Creek West Facility Effluent Monitoring Station EFF-004	The effluent sampling station shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained from the San Jose Creek West WRP. Latitude: 34.111125 N Longitude: -117.971036 W

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
004	San Jose Creek West Facility Effluent Monitoring Station EFF-004X	The effluent sampling station for total residual chlorine, pH, and temperature is located at outfall for the Discharge point 004. The total residual chlorine, pH, and temperature limitations shall be applied to the effluent sample collected at this point.
005	San Jose Creek West Facility Effluent Monitoring Station EFF-005	The effluent sampling station shall be located downstream of any in-plant return flows and after the final disinfection process, where representative samples of the effluent can be obtained from the San Jose Creek West WRP. Latitude: 34.131603 N Longitude: -117.950228 W
005	San Jose Creek West Facility Effluent Monitoring Station EFF-005X	The effluent sampling station for total residual chlorine, pH, and temperature is located at outfall for the Discharge point 005. The total residual chlorine, pH, and temperature limitations shall be applied to the effluent sample collected at this point.
---	Receiving Water Monitoring Station RSW-001	Upstream Receiving Water Monitoring Station: San Jose Creek, 1,300 feet upstream of Discharge point 002 (C1) Latitude: 34.033389 N Longitude: -118.017639 W
---	Receiving Water Monitoring Station RSW-001-A	Bioassessment Monitoring Station: San Jose Creek Reach 1. Upstream of Discharge point 002 and RSW-001 in the unlined portion of the channel (C1-A). Latitude: 34.032306 N Longitude: -118.008278 W
---	Receiving Water Monitoring Station RSW-002	Downstream Receiving Water Monitoring Station: San Jose Creek, No further than 100 ft downstream of Discharge point 002. This location is also used for San Jose Creek ammonia receiving water point of compliance. (C2) Latitude: 34.035694 N Longitude: -118.021306 W
---	Receiving Water Monitoring Station RSW-003	Upstream Receiving Water Monitoring Station: San Gabriel River, 2,112 feet upstream of Discharge point 003 and 600

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
		feet upstream of San Jose Creek confluence (R10) Latitude: 34.039583 N Longitude: -118.025194 W
---	Receiving Water Monitoring Station RSW-004	Downstream Receiving Water Monitoring Station: San Gabriel River, No further than 100 feet downstream of Discharge point 003. This location is also used for San Gabriel River ammonia receiving water point of compliance. (R11) Latitude: 34.036111 N Longitude: -118.030861 W
---	Receiving Water Monitoring Station RSW-004A	San Gabriel River Reach 3, Bioassessment Monitoring Station. Downstream of Discharge point 003 (WN-RA-A). Latitude: 34.024528 N Longitude: -118.053222 W
---	Receiving Water Monitoring Station RSW-004D	TMDL, Dry and Wet Weather Flow Monitoring Station: San Gabriel River. Above the Whittier Narrows Dam, at USGS Gauging Station #11087020 located in San Gabriel River Reach 3 above Whittier Narrows Dam. This gauging station is operated and maintained by the USGS. Latitude: 34.034167 N Longitude: -118.037222
---	Receiving Water Monitoring Station RSW-005	Downstream Receiving Water Monitoring Station: San Gabriel River at Firestone Blvd, No further than 100 feet downstream of Discharge point 001. This location is also used for San Gabriel River ammonia receiving water point of compliance. (R2) Latitude: 33.929528 N Longitude: -118.107806 W
---	Receiving Water Monitoring Station RSW-006	Downstream Receiving Water Monitoring Station: San Gabriel River, No further than 100 feet downstream of Discharge Point 001A. This location is also used for San Gabriel River ammonia receiving water point of compliance. (R12) Latitude: 33.993861 N Longitude: -118.073444 W

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
---	Receiving Water Monitoring Station RSW-007	Downstream Receiving Water Monitoring Station: San Gabriel River, No further than 100 feet downstream of Discharge Point 001B. This location is also used for San Gabriel River ammonia receiving water point of compliance. (R13) Latitude: 33.969472 N Longitude: -118.088778 W
---	Receiving Water Monitoring Station RSW-008	Upstream Receiving Water Monitoring Station: San Gabriel River, 100 feet upstream of Discharge Point 004. Latitude: 34.111333 N Longitude: -117.970722 W
---	Receiving Water Monitoring Station RSW-009	Downstream Receiving Water Monitoring Station: San Gabriel River, No further than 100 feet downstream of Discharge Point 004. This location is also used for San Gabriel River ammonia receiving water point of compliance. Latitude: 34.110972 N Longitude: -117.971194 W
---	Receiving Water Monitoring Station RSW-010	Upstream Receiving Water Monitoring Station: San Gabriel River, 100 feet upstream of Discharge Point 005. Latitude: 34.131833 N Longitude: -117.950056 W
---	Receiving Water Monitoring Station RSW-011	Downstream Receiving Water Monitoring Station: San Gabriel River, 100 feet downstream of Discharge Point 005. This location is also used for San Gabriel River ammonia receiving water point of compliance. Latitude: 34.131417 N Longitude: -117.950476 W

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

3. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.

- Assess effectiveness of the pretreatment program.

3.1 Monitoring Locations INF-001 and INF-002

The Discharger shall monitor influent to the facility at INF-001 and INF-002 as follows.

Table E-2. Influent Monitoring INF-001 and INF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	recorder	continuous	a
pH	pH unit	Grab	weekly	b
Temperature	°F	Grab	weekly	b
Total Suspended Solids (TSS)	mg/L	24-hour composite	weekly	b
Biochemical Oxygen Demand (BOD_5 20°C)	mg/L	24-hour composite	weekly	b
Lead	μg/L	24-hour composite	monthly	b
Selenium	μg/L	24-hour composite	monthly	b
Chromium VI	μg/L	grab	annually	b
PCBs as Aroclors	pg/L	24-hour composite	annually	b and c
PCBs as Congeners	pg/L	24-hour composite	annually	b and c
Remaining EPA priority pollutants excluding asbestos	µg/L	24-hour composite; grab for VOCs, Cyanide, and grab or composite for bis(2-ehtylhexyl)phthalate and TCDD equivalents	semiannually	b, d, and e

Footnotes for Table E-2

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

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

c. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

d. 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.

e. The 40 CFR Part 136 method for phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents as long as the sample bottles are glassware.

End of footnotes for Table E-2

4. EFFLUENT MONITORING REQUIREMENTS

Effluent monitoring is required to:

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

4.1 Monitoring Location EFF-001, EFF-001A and EFF-001B

The same outfall pipeline discharges to the San Gabriel River at Discharge Points Nos. 001,001A and 001B. Total residual chlorine, pH, and temperature are monitored at EFF-001X, EFF-001AX, and EFF-001BX and are required only when there is flow. Monitoring for other required parameters for EFF-001, EFF-001A and EFF-001B is based on flow-weighting calculations as follows:

Concentration = [(East Concentration x metered East Flow to outfall pipeline) + (West Concentration x metered West Flow to outfall pipeline]/ (East Flow to outfall pipeline+ West Flow to outfall pipeline).

Mass = [(East Concentration x East Flow to EFF-001, 001A or 001B) + (West Concentration x West Flow to EFF-001, 001A or 001B)] x Conversion Factor.

If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding minimum level. The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-001, EFF-001A, and EFF-001B as follows:

Table E-3. Effluent Monitoring EFF-001, EFF-001A, and EFF-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total waste flow	mgd	Calculated	Continuous	a
Turbidity	NTU	Calculated	Continuous	a, b, and c

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total residual chlorine	mg/L	Grab	Daily	b and d
Total coliform	MPN/100mL or CFU/100mL	Calculated	Weekly	b and c
E. coli	MPN/100mL or CFU/100mL	Calculated	Weekly	b and e
Temperature	°F	Grab	Weekly	b and f
pH	pH units	Grab	Weekly	b and f
Settleable solids	mL/L	Calculated	weekly	b
Total Suspended Solids (TSS)	mg/L	Calculated	weekly	b
BOD_5 20°C	mg/L	Calculated	weekly	b and m
Oil and grease	mg/L	Calculated	quarterly	b
Dissolved oxygen	mg/L	Calculated	monthly	b
Total Dissolved Solids	mg/L	Calculated	monthly	b
Sulfate	mg/L	Calculated	monthly	b
Chloride	mg/L	Calculated	monthly	b
Boron	mg/L	Calculated	monthly	b
Fluoride	mg/L	Calculated	semiannually	b
Iron	mg/L	Calculated	semiannually	b
Ammonia Nitrogen	mg/L	Calculated	monthly	b and f
Nitrite nitrogen	mg/L	Calculated	monthly	b and f
Nitrate + Nitrite (as nitrogen	mg/L	Calculated	monthly	b and f
Organic nitrogen	mg/L	Calculated	monthly	b and f
Total nitrogen	mg/L	Calculated	monthly	b and f
Total Kjeldahl Nitrogen (TKN)	mg/L	Calculated	monthly	b and f
Total phosphorus	mg/L	Calculated	monthly	b
Orthophosphate-P	mg/L	Calculated	monthly	b
Surfactants (MBAS)	mg/L	Calculated	quarterly	b
Surfactants (CTAS)	mg/L	Calculated	quarterly	b
Total hardness ($CaCO_3$)	mg/L	Calculated	monthly	b
Copper	µg/L	Calculated	monthly	b
Lead	µg/L	Calculated	monthly	b
Mercury	µg/L	Calculated	semiannually	b and l
Nickel	µg/L	Calculated	semiannually	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Selenium	µg/L	Calculated	monthly	b
Cyanide	µg/L	Calculated	monthly	b
Chromium VI	µg/L	Calculated	semiannually	b
Chromium III	µg/L	Calculated	semiannually	b
PCBs as Aroclors	pg/L	Calculated	annually	b and h
PCBs as Congeners	pg/L	Calculated	annually	b and h
Toxaphene	µg/L	Calculated	quarterly	b
Chlordane	µg/L	Calculated	quarterly	b
Dieldrin	µg/L	Calculated	monthly	b
Benzo(a)pyrene	µg/L	Calculated	monthly	b
Heptachlor	µg/L	Calculated	monthly	b
Perchlorate	µg/L	Calculated	annually	b and j
Methyl tert-butyl-ether (MTBE)	µg/L	Calculated	annually	b and j
1,4-dioxane	µg/L	Calculated	annually	b and j
1,2,3-Trichloropropane	µg/L	Calculated	annually	b and j
Total Trihalomethanes	µg/L	Calculated	monthly	b and k
Chlorpyrifos	µg/L	Calculated	annually	b
Diazinon	µg/L	Calculated	annually	b
Bis(2-ethylhexyl) phthalate	µg/L	Calculated	semiannually	b and n
TCDD equivalents	pg/L	Calculated	monthly	b and n
Chronic toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	24- hour composite (report only East and West toxicity data, do not flow-weight)	monthly	g
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	Calculated	annually	b and i
Remaining USEPA priority pollutants excluding asbestos and PCBs	µg/L	Calculated	semiannually	b and o

Footnotes for Table E-3

a. 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. A grab sample can be used to determine compliance with the 10 NTU limit. A flow-weighted 24-hour composite sample may be collected for turbidity at San Jose East and West WRPs in place of the recorder to determine the flow-proportioned average daily value. A flow-weighted 24-hour composite sample may be collected for turbidity at EFF-001, EFF-001A, and EFF-001B in place of the recorder to determine the flow-proportioned average daily value.

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

c. Total Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.

d. Daily grab samples shall be collected during peak flow at monitoring location EFF-001, EFF-001A, and EFF-001B 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. Total residual chlorine cannot be monitored using a continuous recorder at Discharge Nos. 001, 001A, and 001B and is only monitoring by a grab sample at these outfalls. These outfalls are at a remote location in a streambed several miles downstream of the plant.

e. *E. coli* testing shall be conducted only if total coliform testing is positive. If the total coliform analysis results in no detection, a result of less than (<) the reporting limit for total coliform will be reported for *E. coli*.

f. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total Kjeldahl nitrogen, pH, and temperature sampling shall be conducted as close to concurrently as possible.

g. The Discharger shall conduct whole effluent toxicity monitoring using the *Ceriodaphnia dubia* as the test species, as outlined in section 5 of this MRP. For the *Ceriodaphnia dubia* reproduction endpoint, the median monthly effluent limitation (MMEL) summary result shall be reported as “Pass” or “Fail” and the maximum daily single result shall be reported as “Pass” or “Fail” and “% Effect.” The *Ceriodaphnia dubia* reproduction endpoint shall be reported as “Pass” or “Fail” and “% Effect”. The *Ceriodaphnia dubia* survival endpoint, shall be reported as “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests constitutes a violation of the chronic toxicity MMEL. Toxicity data must be reported for the East facility and West facility separately and should not be flow weighted.

h. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

i. Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for

tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If radium-226 & 228 exceeds the stipulated criteria, analyze for tritium, strontium-90 and uranium.

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

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

l. USEPA Method 1631E, per 40 CFR part 136, with a quantification level lower than 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR part 136, the Discharger may use that method in lieu of USEPA Method 1631E.

m. If the result of the weekly BOD analysis yields a value greater than the average monthly effluent limitation (AMEL), the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the average weekly effluent limitation (AWEL) and AMEL BOD limits is demonstrated; after which the frequency shall revert to weekly.

n. The 40 CFR Part 136 method for phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents as long as the sample bottles are glassware.

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

End of Footnotes for Table E-3

4.2 Monitoring Location EFF-002

The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-002 as follows. Total residual chlorine, pH, and temperature are monitored at EFF-002X and is required only when there is flow through Discharger Point Number 002. Monitoring for all parameters at EFF-002 is reportable to CIWQS if there is flow to Discharge Number 002 during the reporting month. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level:

Table E-4. Effluent Monitoring at EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total waste flow	mgd	Recorder	continuous	a
Turbidity	NTU	Recorder	continuous	a, b, and c
Total residual chlorine	mg/L	Recorder	continuous	b and d

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total residual chlorine	mg/L	Grab	daily	b and e
Total coliform	MPN/100mL or CFU/100mL	Grab	weekly	b, c, and f
E. coli	MPN/100mL or CFU/100mL	Grab	weekly	b and f
Temperature	°F	grab	weekly	b and g
pH	pH units	grab	weekly	b and g
Settleable solids	mL/L	grab	weekly	b
Total suspended solids (TSS)	mg/L	24-hour composite	weekly	b
BOD_5 20°C	mg/L	24-hour composite	weekly	b and h
Oil and grease	mg/L	grab	quarterly	b
Dissolved oxygen	mg/L	grab	monthly	b
Total Dissolved Solids	mg/L	24-hour composite	monthly	b
Sulfate	mg/L	24-hour composite	monthly	b
Chloride	mg/L	24-hour composite	monthly	b
Boron	mg/L	24-hour composite	monthly	b
Ammonia Nitrogen	mg/L	24-hour composite	monthly	b and g
Nitrite nitrogen	mg/L	24-hour composite	monthly	b and g
Nitrate plus nitrite as nitrogen	mg/L	24-hour composite	monthly	b and g
Organic nitrogen	mg/L	24-hour composite	monthly	b and g
Total kjeldahl nitrogen (TKN)	mg/L	24-hour composite	monthly	b and g
Total nitrogen	mg/L	calculated	monthly	b
Total phosphorus	mg/L	24-hour composite	monthly	b
Orthophosphate-P	mg/L	24-hour composite	monthly	b
Surfactants (MBAS)	mg/L	24-hour composite	quarterly	b
Surfactants (CTAS)	mg/L	24-hour composite	quarterly	b
Total hardness ($CaCO_3$)	mg/L	24-hour composite	monthly	b
Antimony	µg/L	24-hour composite	semiannually	b
Arsenic	µg/L	24-hour composite	semiannually	b
Cadmium	µg/L	24-hour composite	semiannually	b
Chromium III	µg/L	calculated	semiannually	b and j
Chromium VI	µg/L	grab	semiannually	b
Total Chromium	µg/L	grab	semiannually	b
Copper	µg/L	24-hour composite	semiannually	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Lead	µg/L	24-hour composite	monthly	b
Mercury	µg/L	24-hour composite	semiannually	b and s
Nickel	µg/L	24-hour composite	semiannually	b
Selenium	µg/L	24-hour composite	monthly	b
Silver	µg/L	24-hour composite	semiannually	b
Thallium	µg/L	24-hour composite	semiannually	b
Zinc	µg/L	24-hour composite	semiannually	b
Cyanide	µg/L	grab	semiannually	b
Bis(2-ethylhexyl)phthalate	µg/L	grab or 24-hour composite	semiannually	b and r
Total Trihalomethanes	µg/L	grab/calculated sum	monthly	b and k
PCBs as aroclors	pg/L	24-hour composite	annually	b and l
PCBs as congeners	pg/L	24-hour composite	annually	b and l
Toxaphene	µg/L	24-hour composite	semiannually	b
Fluoride	mg/L	24-hour composite	semiannually	b
Iron	µg/L	24-hour composite	semiannually	b
TCDD equivalents	pg/L	grab or 24-hour composite	semiannually	b, n, and r
Chlorpyrifos	µg/L	24-hour composite	annually	b and o
Diazinon	µg/L	24-hour composite	annually	b and o
Perchlorate	µg/L	grab	annually	p
1,4-Dioxane	µg/L	grab	annually	p
1,2,3-Trichloropropane	µg/L	grab	annually	p
Methyl tert-butyl-ether (MTBE)	µg/L	grab	annually	p
Benzo(a)pyrene	µg/L	24-hour composite	monthly	b
Dieldrin	µg/L	24-hour composite	monthly	b
Chronic toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	24-hour composite	monthly	i
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 & uranium)	pCi/L	24-hour composite	semiannually	m

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Remaining EPA priority pollutants excluding asbestos	µg/L	24-hour composite; grab for VOCs	semiannually	b and q

Footnotes for Table E-4

a. 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. A grab sample can be used to determine compliance with the 10 NTU limit. A flow-weighted 24-hour composite sample may be collected for turbidity at San Jose East and West WRPs in place of the recorder to determine the flow-proportioned average daily value. A flow-weighted 24-hour composite sample may be collected for turbidity at EFF-001, EFF-001A, and EFF-001B in place of the recorder to determine the flow-proportioned average daily value.

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

c. Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.

d. Total residual chlorine shall be recorded continuously. The recorded data shall be maintained by the Permittee for at least five years. The Permittee shall extract the maximum daily peak, minimum daily peak, and average daily from the recorded media and shall be made available upon request of the Los Angeles Water Board. The continuous monitoring data are not intended to be used for compliance determination purposes.

e. Daily grab samples shall be collected during peak flow at monitoring location EFF-002 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 at EFF-002X. Furthermore, additional monitoring requirements specified in section 4.5. shall be followed.

f. Total coliform shall be sampled at least once daily per CCR, Title 22 section 60321(a). However, *E. coli* testing shall be conducted only if total coliform testing is positive. If the total coliform analysis results in no detection, a result of less than (<) the reporting limit for total coliform will be reported for *E. coli*.

g. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total kjeldahl nitrogen, pH, and temperature sampling shall be conducted on the same day or as close to concurrently as possible.

h. If the result of the weekly BOD analysis yields a value greater than the average monthly effluent limitation (AMEL), the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the average weekly effluent limitation (AWEL) and AMEL BOD limits is demonstrated; after which the frequency shall revert to weekly.

i. The Discharger shall conduct whole effluent toxicity monitoring using the *Ceriodaphnia dubia* as the test species, as outlined in section 5 of this MRP. For the *Ceriodaphnia dubia* reproduction endpoint, the median monthly effluent limitation (MMEL) summary result shall be reported as “Pass” or “Fail” and the maximum daily single result shall be reported as “Pass” or “Fail” and “% Effect.” For the

Ceriodaphnia dubia survival endpoint, the MMEL and the MDEL results shall be reported as "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP may complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests constitutes a violation of the chronic toxicity MMEL.

j. The results for Chromium III shall be calculated by subtracting the Chromium VI concentration from the Total Chromium concentration.

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

l. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

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

n. In accordance with the SIP, the Permittee shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-001, located upstream of the Discharge Point 002. 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., $TEQ_i = C_i \times TEF_i$). The Discharger shall report all measured values of individual congeners, including data qualifiers. TCDD equivalents concentration shall be reported as the summation of the seventeen individual TEQs, or the following equation:

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

o. Chlorpyrifos and Diazinon may be analyzed using USEPA method 8141A or EPA 525.2. Chlorpyrifos, Diazinon, and chronic effluent toxicity shall be sampled on the same day or as close to concurrently as possible.

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

q. 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.

r. The 40 CFR Part 136 method for phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be

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

s. USEPA Method 1631E, per 40 CFR part 136, with a quantification level lower than 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR part 136, the Discharger may use that method in lieu of USEPA Method 1631E.

End of Footnotes for Table E-4

4.3 Monitoring Location EFF-003

The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-003 as follows. Monitoring for total residual chlorine, pH, and temperature are monitored at EFF-003X and are required only when there is flow through Discharge Point 003. Monitoring results for all parameters at EFF-003 shall be reported to CIWQS if there is flow to Discharge 003 during the reporting month. If more than one analytical test method is listed for a given parameter, the Permittee must select from the listed methods and corresponding Minimum Level, such that compliance with effluent limitations can be determined and/or future RPA may be conducted.

Table E-5. Effluent Monitoring EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total waste flow	mgd	Recorder	continuous	a
Turbidity	NTU	Recorder	continuous	a, b, and c
Total residual chlorine	mg/L	Recorder	continuous	b and d
Total residual chlorine	mg/L	Grab	daily	b and e
Total coliform	MPN/100mL or CFU/100mL	Grab	weekly	b, c, and f
E. coli	MPN/100mL or CFU/100mL	Grab	weekly	b and f
Temperature	°F	grab	weekly	b and g
pH	pH units	grab	weekly	b and g
Settleable solids	mL/L	grab	weekly	b
Total suspended solids (TSS)	mg/L	24-hour composite	weekly	b
BOD_5 20°C	mg/L	24-hour composite	weekly	b and h
Oil and grease	mg/L	grab	quarterly	b
Dissolved oxygen	mg/L	grab	monthly	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total Dissolved Solids	mg/L	24-hour composite	monthly	b
Sulfate	mg/L	24-hour composite	monthly	b
Chloride	mg/L	24-hour composite	monthly	b
Boron	mg/L	24-hour composite	monthly	b
Ammonia Nitrogen	mg/L	24-hour composite	monthly	b and g
Nitrite nitrogen	mg/L	24-hour composite	monthly	b and g
Nitrate plus nitrite as nitrogen	mg/L	24-hour composite	monthly	b and g
Organic nitrogen	mg/L	24-hour composite	monthly	b and g
Total kjeldahl nitrogen (TKN)	mg/L	24-hour composite	monthly	b and g
Total nitrogen	mg/L	calculated	monthly	b
Total phosphorus	mg/L	24-hour composite	monthly	b
Orthophosphate-P	mg/L	24-hour composite	monthly	b
Surfactants (MBAS)	mg/L	24-hour composite	quarterly	b
Surfactants (CTAS)	mg/L	24-hour composite	quarterly	b
Total hardness ($CaCO_3$)	mg/L	24-hour composite	monthly	b
Antimony	µg/L	24-hour composite	semiannually	b
Arsenic	µg/L	24-hour composite	semiannually	b
Cadmium	µg/L	24-hour composite	semiannually	b
Chromium III	µg/L	calculated	semiannually	b and j
Chromium VI	µg/L	grab	semiannually	b
Total Chromium	µg/L	grab	semiannually	b
Copper	µg/L	24-hour composite	semiannually	b
Lead	µg/L	24-hour composite	monthly	b
Mercury	µg/L	24-hour composite	semiannually	b and s
Nickel	µg/L	24-hour composite	semiannually	b
Selenium	µg/L	24-hour composite	monthly	b
Silver	µg/L	24-hour composite	semiannually	b
Thallium	µg/L	24-hour composite	semiannually	b
Zinc	µg/L	24-hour composite	semiannually	b
Cyanide	µg/L	grab	semiannually	b
Bis(2-ethylhexyl)phthalate	µg/L	grab or 24-hour composite	semiannually	b and r

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total Trihalomethanes	µg/L	grab/calculated sum	monthly	b and k
PCBs as aroclors	pg/L	24-hour composite	annually	b and l
PCBs as congeners	pg/L	24-hour composite	annually	b and l
Fluoride	mg/L	24-hour composite	semiannually	b
Iron	µg/L	24-hour composite	monthly	b
TCDD equivalents	pg/L	Grab or 24-hour composite	monthly	b, n, and r
Heptachlor	µg/L	24-hour composite	monthly	b
Dieldrin	µg/L	24-hour composite	monthly	b
Chlorpyrifos	µg/L	24-hour composite	annually	b and o
Diazinon	µg/L	24-hour composite	annually	b and o
Perchlorate	µg/L	24-hour composite	annually	p
1,4-Dioxane	µg/L	24-hour composite	annually	p
1,2,3-Trichloropropane	µg/L	24-hour composite	annually	p
Methyl tert-butyl-ether (MTBE)	µg/L	24-hour composite	annually	p
Chronic toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	24-hour composite	monthly	i
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 & uranium)	pCi/L	24-hour composite	semiannually	m
Remaining EPA priority pollutants excluding asbestos	µg/L	24-hour composite; grab for VOCs	semiannually	b and q

Footnotes for Table E-5

a. 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. A grab sample can be used to determine compliance with the 10 NTU limit. A flow-weighted 24-hour composite sample may be collected for turbidity at San Jose East and West WRPs in place of the recorder to determine the flow-proportioned average

daily value. A flow-weighted 24-hour composite sample may be collected for turbidity at EFF-001, EFF-001A, and EFF-001B in place of the recorder to determine the flow-proportioned average daily value.

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

c. Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.

d. Total residual chlorine shall be recorded continuously. The recorded data shall be maintained by the Permittee for at least five years. The Permittee shall extract the maximum daily peak, minimum daily peak, and average daily from the recorded media and shall be made available upon request of the Los Angeles Water Board. The continuous monitoring data are not intended to be used for compliance determination purposes.

e. Daily grab samples shall be collected during peak flow at monitoring location EFF-003 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 at EFF-003X. Furthermore, additional monitoring requirements specified in section 4.5. shall be followed.

f. Total coliform shall be sampled at least once daily per CCR, Title 22 section 60321(a). However, *E. coli* testing shall be conducted only if total coliform testing is positive. If the total coliform analysis results in no detection, a result of less than (<) the reporting limit for total coliform will be reported for *E. coli*.

g. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total kjeldahl nitrogen, pH, and temperature sampling shall be conducted on the same day or as close to concurrently as possible.

h. If the result of the weekly BOD analysis yields a value greater than the average monthly effluent limitation (AMEL), the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the average weekly effluent limitation (AWEL) and AMEL BOD limits is demonstrated; after which the frequency shall revert to weekly.

i. The Discharger shall conduct whole effluent toxicity monitoring using the *Ceriodaphnia dubia* as the test species, as outlined in section 5 of this MRP. For the *Ceriodaphnia dubia* reproduction endpoint, the median monthly effluent limitation (MMEL) summary result shall be reported as “Pass” or “Fail” and the maximum daily single result shall be reported as “Pass” or “Fail” and “% Effect.” For the *Ceriodaphnia dubia* survival endpoint, the MMEL and the MDEL results shall be reported as “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests constitutes a violation of the chronic toxicity MMEL.

j. The results for Chromium III shall be calculated by subtracting the Chromium VI concentration from the Total Chromium concentration.

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

l. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will

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

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

n. In accordance with the SIP, the Permittee shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-003, located upstream of the discharge point number 003. 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., $TEQ_i = C_i \times TEF_i$). The Discharger shall report all measured values of individual congeners, including data qualifiers. TCDD equivalents concentration shall be reported as the summation of the seventeen individual TEQs, or the following equation:

$$\text{Dioxin concentration in effluent} = \sum_{1}^{17}(TEQ_1) = \sum_{1}^{17}(C_1)(TEF_i)$$

o. Chlorpyrifos and Diazinon may be analyzed using USEPA method 8141A or EPA 525.2. Chlorpyrifos, Diazinon, and chronic effluent toxicity shall be sampled on the same day or as close to concurrently as possible.

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

q. 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.

r. The 40 CFR Part 136 method for phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents as long as the sample bottles are glassware.

s. USEPA Method 1631E, per 40 CFR part 136, with a quantification level lower than 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR part 136, the Discharger may use that method in lieu of USEPA Method 1631E.

End of Footnotes for Table E-5

4.4 Monitoring Location EFF-004 and EFF-005

The Discharger shall monitor the discharge of tertiary-treated effluent at EFF-004 and EFF-005 as directed in this Order. Total residual chlorine, pH, and temperature are monitored at EFF-004X and EFF-005X and are required only when there is flow.

Monitoring for all parameters at EFF-004 and EFF-005 is reportable to CIWQS if there is flow during the reporting month. In lieu of duplicative monitoring, results of samples collected during the month at EFF-003 may be reported to CIWQS for EFF-004 and EFF-005, during months when there is discharge from EFF-004 and EFF-005. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level, such that compliance with effluent limitations can be determined and/or future RPA may be conducted. Discharge from outfalls EEF-004 and EEF-005 cannot begin until DDW has approved a Title 22 Engineering Report and the WRR has been adopted by the Los Angeles Water Board.

Table E-6. Effluent Monitoring EFF-004 and EFF-005

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total waste flow	mgd	Recorder	Continuous	a
Turbidity	NTU	Recorder	Continuous	a, b, and c
Total residual chlorine	mg/L	Grab	Daily	b and d
Total coliform	MPN/100mL or CFU/100mL	Grab	Weekly	b, c, and e
E. coli	MPN/100mL or CFU/100mL	Grab	Weekly	b and e
Temperature	°F	Grab	Weekly	b and f
pH	pH units	Grab	Weekly	b and f
Settleable solids	mL/L	Grab	Weekly	b
Total suspended solids (TSS)	mg/L	24-hour composite	Weekly	b
BOD_5 20°C	mg/L	24-hour composite	Weekly	b and g
Oil and grease	mg/L	Grab	Quarterly	b
Dissolved oxygen	mg/L	Grab	Monthly	b
Total Dissolved Solids	mg/L	24-hour composite	Monthly	b
Sulfate	mg/L	24-hour composite	Monthly	b
Chloride	mg/L	24-hour composite	Monthly	b
Boron	mg/L	24-hour composite	Monthly	b
Ammonia Nitrogen	mg/L	24-hour composite	Monthly	b and f
Nitrite nitrogen	mg/L	24-hour composite	Monthly	b and f
Nitrate plus nitrite as nitrogen	mg/L	24-hour composite	Monthly	b and f
Organic nitrogen	mg/L	24-hour composite	Monthly	b and f
Total kjeldahl nitrogen (TKN)	mg/L	24-hour composite	Monthly	b and f

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total nitrogen	mg/L	Calculated	Monthly	b
Total phosphorus	mg/L	24-hour composite	Monthly	b
Orthophosphate-P	mg/L	24-hour composite	Monthly	b
Surfactants (MBAS)	mg/L	24-hour composite	Quarterly	b
Surfactants (CTAS)	mg/L	24-hour composite	Quarterly	b
Total hardness ($CaCO_3$)	mg/L	24-hour composite	Monthly	b
Chronic toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	24-hour composite	Monthly	h
Antimony	µg/L	24-hour composite	Semiannually	b
Arsenic	µg/L	24-hour composite	Monthly	b
Cadmium	µg/L	24-hour composite	Semiannually	b
Chromium III	µg/L	Calculated	Semiannually	b and i
Chromium VI	µg/L	Grab	Semiannually	b
Total Chromium	µg/L	Grab	Semiannually	b
Copper	µg/L	24-hour composite	Monthly	b
Lead	µg/L	24-hour composite	Monthly	b
Mercury	µg/L	24-hour composite	Semiannually	b and q
Nickel	µg/L	24-hour composite	Semiannually	b
Selenium	µg/L	24-hour composite	Monthly	b
Silver	µg/L	24-hour composite	Semiannually	b
Thallium	µg/L	24-hour composite	Semiannually	b
Zinc	µg/L	24-hour composite	Semiannually	b
Cyanide	µg/L	Grab	Semiannually	b
Bis(2-ethylhexyl)phthalate	µg/L	Grab or 24-hour composite	Semiannually	b and r
Total Trihalomethanes	µg/L	grab/calculated sum	Monthly	b and j
PCBs as aroclors	pg/L	24-hour composite	Annually	b and k
PCBs as congeners	pg/L	24-hour composite	Annually	b and k
Fluoride	mg/L	24-hour composite	Semiannually	b
Iron	µg/L	24-hour composite	Monthly	b
Radioactivity (Including gross alpha, gross beta,	pCi/L	24-hour composite	Semiannually	l

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
combined radium-226 and radium-228, tritium, strontium-90 & uranium)				
Dieldrin	µg/L	24-hour composite	Monthly	b
TCDD equivalents	pg/L	grab or 24-hour composite	Monthly	b, m, and r
Heptachlor	µg/L	24-hour composite	Monthly	b
Chlorpyrifos	µg/L	24-hour composite	Annually	b and n
Diazinon	µg/L	24-hour composite	Annually	b and n
Perchlorate	µg/L	24-hour composite	Annually	o
1,4-Dioxane	µg/L	24-hour composite	Annually	o
1,2,3-Trichloropropane	µg/L	24-hour composite	Annually	o
Methyl tert-butyl-ether (MTBE)	µg/L	24-hour composite	Annually	o
Remaining EPA priority pollutants excluding asbestos	µg/L	24-hour composite; grab for VOCs	Semiannually	b and p

Footnotes for Table E-6

a. 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. A grab sample can be used to determine compliance with the 10 NTU limit. A flow-weighted 24-hour composite sample may be collected for turbidity at San Jose East and West WRPs in place of the recorder to determine the flow-proportioned average daily value. A flow-weighted 24-hour composite sample may be collected for turbidity at EFF-001, EFF-001A, and EFF-001B in place of the recorder to determine the flow-proportioned average daily value.

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

c. Coliform and turbidity samples shall be obtained at some point in the treatment process at a time when wastewater flow and characteristics are most demanding on the treatment facilities, filtration, and disinfection procedures.

d. Total residual chlorine cannot be monitored using a continuous recorder at Discharge Nos. 004 and 005 and is only monitored by a grab sample at these outfalls. These outfalls are at a remote location in a streambed several miles upstream of the plant. Equipment cannot be maintained there due to vandalism and storm flooding. Analytical results of daily grab samples will be used to determine

compliance with total residual chlorine effluent limitation at EFF-004X and 005X. Daily samples shall be collected Monday through Friday, except for holidays.

e. Total coliform shall be sampled at least once daily per CCR, Title 22 section 60321(a). However, *E. coli* testing shall be conducted only if total coliform testing is positive. If the total coliform analysis results in no detection, a result of less than (<) the reporting limit for total coliform will be reported for *E. coli*.

f. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total kjeldahl nitrogen, pH, and temperature sampling shall be conducted on the same day or as close to concurrently as possible.

g. If the result of the weekly BOD analysis yields a value greater than the average monthly effluent limitation (AMEL), the frequency of analysis shall be increased to daily within one week of knowledge of the test result for at least 30 days and until compliance with the average weekly effluent limitation (AWEL) and AMEL BOD limits is demonstrated; after which the frequency shall revert to weekly.

h. The Discharger shall conduct whole effluent toxicity monitoring using the *Ceriodaphnia dubia* as the test species, as outlined in section 5 of this MRP. For the *Ceriodaphnia dubia* reproduction endpoint, the median monthly effluent limitation (MMEL) summary result shall be reported as "Pass" or "Fail" and the maximum daily single result shall be reported as "Pass" or "Fail" and "% Effect." For the *Ceriodaphnia dubia* survival endpoint, the MMEL and the MDEL results shall be reported as "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP may complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests constitutes a violation of the chronic toxicity MMEL.

i. The results for Chromium III shall be calculated by subtracting the Chromium VI concentration from the Total Chromium concentration.

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

k. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

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

m. In accordance with the SIP, the Permittee shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Station RSW-010, located upstream of the discharge point number 004 and 005. 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., $TEQ_i = C_i \times TEF_i$). The Discharger shall report all measured values of individual congeners, including data qualifiers. TCDD equivalents concentration shall be reported as the summation of the seventeen individual TEQs, or the following equation:

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

n. Chlorpyrifos and Diazinon may be analyzed using USEPA method 8141A or EPA 525.2. Chlorpyrifos, Diazinon, and chronic effluent toxicity shall be sampled on the same day or as close to concurrently as possible.

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

p. 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.

q. USEPA Method 1631E, per 40 CFR part 136, with a quantification level lower than 0.5 ng/L, shall be used to analyze total mercury. If an alternative method with an equivalent or more sensitive method detection limit is approved in 40 CFR part 136, the Discharger may use that method in lieu of USEPA Method 1631E.

r. The 40 CFR Part 136 method for phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents requires samples to be collected in glass sample containers to avoid interference, which can lead to artifacts and/or elevated baselines in gas chromatograms. Sample collection must be done using glass sample containers for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents unless analytical methods for these pollutants in 40 CFR Part 136 specify that other means of sample collection are approved. Grab sample type is recommended, but an automatic sampler (composite sample) can be used to collect samples for all phthalate esters, including bis (2-ethylhexyl) phthalate, and TCDD equivalents as long as the sample bottles are glassware.

End of Footnotes for Table E-6

4.5 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 3 below:

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

5. CHRONIC WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

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

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

5.2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. 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.

5.3. Chronic Freshwater Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity <1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples at the in-stream waste concentration for the discharge in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to 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.

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

5.4. Species Sensitivity Screening

The Permittee shall begin a species sensitivity screening within 18 months after the effective date of Order Number R4-2021-XXXX. For continuous dischargers, a species sensitivity screening includes four sets of tests completed in the span of one year, with one set collected in each of the four quarters. In each of the four sets, the Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed under the test method for the *Ceriodaphnia dubia* and the *Pimephales promelas*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. However, that same sample shall be used to renew both the *Ceriodaphnia dubia* and the *Pimephales promelas*. For non-continuous dischargers, a set of testing shall be conducted in each quarter in which there is expected to be at least 15 days of discharge. For non-continuous dischargers that discharge in only one quarter of the year in which there is expected to be at least 15 days of discharge, two sets of testing shall be conducted within the same quarter.

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 considered the most sensitive species in a given set. If only one species fails, then that species shall be considered the most sensitive species in a given set. The species that had more fails in the four sets shall be considered the most sensitive species and shall be used for routine monitoring during the next 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 four sets of species sensitivity screening shall be used for routine monitoring during the next permit cycle.

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.

5.5. Quality Assurance and Additional Requirements

5.5.1. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below. 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 the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1 and Appendix B, Table B-1. The null hypothesis (Ho) for the TST 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.

5.5.2. To comply with the Median Monthly Effluent Limit (MMEL) for chronic toxicity, up to three independent toxicity tests may be conducted during a calendar month when the first toxicity test results in "Fail." The first chronic toxicity test is the routine monitoring aquatic chronic toxicity test and the other two chronic toxicity tests are the MMEL compliance tests. If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the IWC, then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is waived because the first chronic MMEL compliance test that results in a "Fail" constitutes a violation and so the second MMEL compliance test is not required.

5.5.3. If the effluent toxicity test does not meet all test acceptability criteria (TAC) and all required test conditions specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA-821-R-02-013) (See Table E-7 for TAC below), then the Discharger must re-sample and re-test within 14 days. Deviations from recommended test conditions, specified in the referenced test method *Short-term*

Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (USEPA 2002, EPA-821-R-02-013), must be evaluated on a case-by-case to determine the validity of test results. The Discharger shall consider the degree of the deviation and the potential or observed impact of the deviation on the test results in consultation with Los Angeles Water Board staff before rejecting or accepting a test result as valid, and shall report the results of the validity determination with supporting evidence for that decision in their monthly report.

Table E-7. USEPA Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria
Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Method 1000.0. (Table 1 of Test Method)	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 Test Method)	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 the surviving control females must produce three broods. (required)
Green Alga, *Selenastrum capricornutum*, Growth Toxicity Test Method 1003.0. (Table 3 of Test Method)	Mean cell density as least $1x10^6$ cells/mL in the controls; and variability (CV%) among control replicates less than or equal to 20%. (required)

5.5.4. Dilution and control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

5.5.5. When preparing samples for toxicity testing, in addition to the required monitoring for conductivity, etc., it is recommended that total alkalinity and total hardness be measured in the undiluted effluent, receiving water, dilution water, and culture water (following the WET methods manual), as well as the major geochemical ions (see Mount et al., 2018).

5.5.6. Monthly reference toxicant testing is sufficient. All reference toxicant test results shall be reviewed and reported using the EC25, where EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

5.5.7. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the Monitoring and Reporting Program and the rationale is explained in the Fact Sheet (Attachment F).

5.6. Preparation of an Initial Investigation TRE Work Plan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Los Angeles Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or the most current version, or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070, April 1989*). At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the work plan shall include:

5.6.1. 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.
5.6.2. 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.
5.6.3. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

5.7. Toxicity Reduction Evaluation (TRE) Process

A TRE is required when the Discharger has any combination of two or more MDEL or MMEL violations within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), then Executive Officer of the Los Angeles Water Board may require a TRE. The discharger shall conduct a TRE in accordance with a TRE Work Plan as approved by Los Angeles Water Board. Routine monitoring shall continue during the TRE process 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. During the TRE process, the major ions (Na^+, K^+, Ca^{2+}, Mg^{2+}, Cl^-, SO_4^{2-}, and HCO^{3-}/CO_3^{2-}), shall be analyzed for in effluent IWC, dilution water, and culture water used for toxicity testing. Those results shall be reported in the corresponding monitoring report.

5.7.1. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) or EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, April 1989) and, within 30 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:
   a. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
   b. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

c. A schedule for these actions, progress reports, and the final report.

5.7.2. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Chronic TIE Manual: Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I (*EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

5.7.3. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and stormwater control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

5.7.4. The Discharger shall continue to conduct routine effluent monitoring and MMEL compliance monitoring while the TIE and/or TRE process is taking place. Additional TRE work plans are not required once a TRE has begun.

5.7.5. The Los Angeles Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. However, the TRE shall be carried out in accordance with the Executive Officer-approved TRE Work Plan.

5.7.6. The Board may consider the results of any TIE/TRE studies in an enforcement action.

5.8. Reporting

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

5.8.1. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge, using the *Ceriodaphnia dubia*. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-10.

5.8.2. A summary of water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, total hardness, salinity, chlorine, ammonia).

5.8.3. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1.

5.8.4. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to the completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

5.8.5. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

5.8.6. Tabular data and graphical plots clearly showing the laboratory's performance for the reference toxicant, for each solution, for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.

5.8.7. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon request from the Los Angeles Water Board Chief Deputy Executive Officer or the Executive Officer.

5.9. Ammonia Removal

5.9.1. Except with prior approval from the Executive Officer of the Los Angeles Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and 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 TIE methods. For example, mortality should be higher at pH 8 and lower at pH 6.

d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite-treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity is due to ammonia.

5.9.2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Los Angeles Water Board, and receiving written permission expressing approval from the Executive Officer of the Los Angeles Water Board.

5.10. Chlorine Removal

Except with prior approval from the Executive Officer of the Los Angeles Water Board, chlorine shall not be removed from bioassay samples. However, chlorine may be removed from the San Jose Creek WRP effluent bioassay samples in the laboratory because often the recycled water demand is high and there is no effluent water available for sampling and the sampling locations and logistics are not feasible.

6. LAND DISCHARGE MONITORING REQUIREMENTS (NOT APPLICABLE)

7. RECYCLING MONITORING REQUIREMENTS (NOT APPLICABLE)

8. RECEIVING WATER MONITORING REQUIREMENTS

8.1. Monitoring Locations RSW-001 (C-1), RSW-002 (C-2), RSW-003 (R-10), RSW-004 (R-11), RSW-005 (R-2), RSW-006 (R-12), RSW-007 (R-13), RSW-008, RSW-009, RSW-010, and RSW-011

8.1.1. The Discharger shall monitor receiving water at RSW-001 (C-1), RSW-002 (C-2), RSW-003 (R-10), RSW-004 (R-11), RSW-005 (R-2), RSW-006 (R-12), RSW-007 (R-13), RSW-008, RSW-009, RSW-010, and RSW-011 as follows. Monitoring requirements at RSW-006 (R-12) or RSW-007 (R-13), are applicable when reclaimed water is discharged through Discharge Points 001A or 001B. Temperature and pH monitored at RSW-002, RSW-004, RSW-005, RSW-006, RSW-007, RSW-009 and RSW-011 are used to calculate the receiving water ammonia water quality objectives. Water shall be sampled at each location when present. However, monitoring does not need to be conducted at RSW-008, RSW-009, RSW-010, and RSW-011 if there is no discharge. Three samples are to be collected upstream of EFF-005 if there is discharge from either EFF-004 or EFF-005 outfalls during the permit term, for background data in future RPA calculation. If sampling cannot take place at RSW-008 or RSW-010, the Permittee shall collect background information from another appropriate sampling location and identify this location in the subsequent annual report.

Table E-8. Receiving Water Monitoring Requirements at RSW-001 (C-1), RSW-002 (C-2), RSW-003 (R-10), RSW-004 (R-11), RSW-005 (R-2), RSW-006 (R-12), RSW-007 (R-13), RSW-008, RSW-009, RSW-010, and RSW-011

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
Total flow	cfs	calculation	monthly	a
Turbidity	NTU	grab	monthly	b
Total residual chlorine	mg/L	grab	monthly	b
Temperature	°F	grab	monthly	c
pH	pH units	grab	monthly	c
Dissolved oxygen	mg/L	grab	monthly	b

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
E. coli	MPN/100mL or CFU/100mL	grab	monthly	b
Settleable solids	mL/L	grab	monthly	b
Total Suspended Solids (TSS)	mg/L	grab	monthly	b
BOD_5 20°C	mg/L	grab	monthly	b
Oil and grease	mg/L	grab	quarterly	b
Total hardness ($CaCO_3$)	mg/L	grab	monthly	b
Conductivity	µmho/cm	grab	monthly	b
Total Dissolved Solids	mg/L	grab	monthly	b
Sulfate	mg/L	grab	monthly	b
Chloride	mg/L	grab	monthly	b
Boron	mg/L	grab	monthly	b
Fluoride	mg/L	grab	semiannually	b
Ammonia Nitrogen	mg/L	grab	monthly	b and c
Nitrite nitrogen	mg/L	grab	monthly	b and c
Nitrate + Nitrite (as nitrogen)	mg/L	grab	monthly	b and c
Organic nitrogen	mg/L	grab	monthly	b and c
Total nitrogen	mg/L	calculated	monthly	b
Total Kjeldahl Nitrogen (TKN)	mg/L	grab	monthly	b and c
Total phosphorus	mg/L	grab	monthly	b
Orthophosphate-P	mg/L	grab	monthly	b
Surfactants (MBAS)	mg/L	grab	quarterly	b
Surfactants (CTAS)	mg/L	grab	quarterly	b
Chronic toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	grab	quarterly	d
Chlorpyrifos	µg/L	grab	semiannually	b and e
diazinon	µg/L	grab	semiannually	b and e
Perchlorate	µg/L	grab	annually	b and f
Methyl tert-butyl-ether (MTBE)	µg/L	grab	annually	b and f
PCBs as aroclors	pg/L	grab	annually	b and g

Parameter	Units	Sample Type	Minimum Sampling Frequency	Notes
PCBs as congeners	pg/L	Grab	annually	b and g
Chromium III	µg/L	calculated	semiannually	b
Chromium VI	µg/L	grab	semiannually	b
Lead	µg/L	grab	monthly	b
Copper	µg/L	grab	monthly	b
Barium	µg/L	grab	semiannually	b
Methoxychlor	µg/L	grab	semiannually	b
Selenium	µg/L	grab	monthly	a
TCDD equivalents	pg/L	grab	semiannually	b and h
1,4-Dioxane	µg/L	grab	annually	b and f
1,2,3-Trichloropropane	µg/L	grab	annually	b and f
Remaining EPA priority pollutants excluding asbestos	µg/L	grab	semiannually	b and i

Footnotes for Table E-8

a. When conditions at receiving water stations RSW-001, RSW-002, RSW-003, RSW-004, RSW-006, RSW-007, RSW-008, RSW-009, RSW-010, and RSW-011 prevent accurate measurement of the flow, the flow may be qualitatively estimated and reported.

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

c. Nitrate nitrogen, nitrite nitrogen, ammonia nitrogen, organic nitrogen, total kjeldahl nitrogen, pH, and temperature sampling shall be conducted on the same day or as close to concurrently as possible.

d. The Discharger shall conduct whole effluent toxicity monitoring as outlined in Section 5. 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” with a “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests constitutes a violation of the chronic toxicity MMEL.

e. Chlorpyrifos and Diazinon may be analyzed using USEPA method 8141A and EPA 525.2. Chlorpyrifos, Diazinon, and chronic effluent toxicity shall be sampled on the same day or as close to concurrently as possible.

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

method 8260B, or 624 if a detection level of less than 5 µg/L is achieved, and if the laboratory received ELAP certification to conduct USEPA method 624).

g. PCBs as aroclors shall be analyzed using USEPA method 608.3. PCBs as congeners shall be analyzed using method 1668c. USEPA recommends that until the USEPA proposed method 1668c is incorporated into 40 CFR 136, permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608.3 for monitoring data, reported as aroclor results, that will be used for determining compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes.

h. In accordance with the SIP, the Permittee shall conduct effluent monitoring for the seventeen 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD or dioxin) congeners in the effluent and in the receiving water Stations RSW-001 and RSW-003. The Permittee shall use the appropriate TEF to determine TEQ. Where TEQ equals the product between each of the 17 individual congeners' (i) concentration analytical result (C_i) and their corresponding TEF_i., (i.e., $TEQ_i = C_i \times TEF_i$). The Discharger shall report all measured values of individual congeners, including data qualifiers. TCDD equivalents concentration shall be reported as the summation of the seventeen individual TEQs, or the following equation:

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

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

End of Footnotes for Table E-8

8.1.2. Receiving water samples shall not be collected during or within 48 hours following the flow of rainwater runoff into the San Gabriel River.

8.1.3. Sampling may be rescheduled at the receiving water stations if weather and flow conditions would endanger the personnel collecting receiving water samples. The monthly monitoring reports shall note such occasions.

8.2. TMDL Stream Flow and Rainfall Monitoring

The Permittee shall report the maximum daily flow at the San Gabriel River at United States Geological Survey (USGS) station 11087020. This station is RSW-004D for the purpose of this permit. This information is necessary to determine the wet-weather condition of the river as defined by the Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries as promulgated by USEPA Region IX on March 26, 2007 (*San Gabriel River Metals TMDL)*. If the gauging station is not operational, an estimated maximum daily flow may be submitted.

Table E-9. TMDL Stream Flow and Rainfall Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Maximum Daily Flow	cubic feet per second(cfs)	recorder	daily

9. OTHER MONITORING REQUIREMENTS

9.1. Watershed Monitoring

9.1.1. The goals of the Watershed-wide Monitoring Program for the San Gabriel 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; and
g. Determine mixing dynamics of effluent and receiving waters in the estuary.

9.1.2. To achieve the goals of the Watershed-wide Monitoring Program, the Permittee shall undertake the responsibilities delineated under an approved watershed-wide monitoring plan in the implementation of the Watershed-wide Monitoring Program for the San Gabriel River, which was approved by the Los Angeles Water Board on September 25, 2006.

9.1.3. In coordination with the Los Angeles County Public Works and other interested stakeholders in the San Gabriel River Watershed, the Discharger shall conduct a bioassessment program annually in the spring/summer period (unless an alternate sampling period is approved by the Executive Officer) and include an analysis of the community structure of the instream macroinvertebrate assemblages, the community structure of the instream algal assemblages, chlorophyll a and biomass for instream algae, and physical habitat assessment at the random monitoring stations designated by the San Gabriel River Watershed Monitoring Program. Over time, bioassessment monitoring will provide a measure of the physical condition of the water body and the integrity of its biological communities.

a. The bioassessment program shall include an analysis of the community structure of the instream macroinvertebrate and algal assemblages, algal biomass, and physical habitat assessment at the bioassessment monitoring stations RSW-001A, RSW-004A, and RSW-005.

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

b. The Discharger must provide a copy of their Standard Operation Procedures (SOPs) for the Bioassessment Monitoring Program to the Los Angeles Water Board upon request. The document must contain step-by-step field, laboratory, data entry, and

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.

c. Field sampling must conform to the SOP established in the Surface Water Ambient Monitoring Program's (SWAMP) *Standard Operating Procedures for the Collection of Field Data for Bioassessment of California Wadeable Streams: Benthic Macroinvertebrates, Algae and Physical Habitat*. Field crews shall be trained on aspects of the protocol and appropriate safety issues. All field data and sample Chain of Custody (COC) forms must be examined for completion and gross errors. Field inspections shall be planned with random visits and shall be performed by the Discharger or an independent auditor. These visits shall report on all aspects of the field procedure with corrective action occurring immediately.

d. 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 Los Angeles Water Board may require QA/QC documents from the taxonomic laboratories and examine their records regularly. Intra-laboratory QA/QC for subsampling, taxonomic validation and corrective actions shall be conducted and documented. Biological laboratories shall also maintain reference collections, vouchered specimens (the Discharger may request the return of their sample voucher collections) and remnant collections. The laboratory should participate in an (external) laboratory taxonomic validation program at a recommended level of 10% or 20%. External QA/QC may be arranged through the California Department of Fish and Wildlife's Aquatic Bioassessment Laboratory located in Rancho Cordova, California.

e. The Executive Officer of the Los Angeles Water Board may modify Monitoring and Reporting Program to accommodate the watershed-wide monitoring.

9.2. Tertiary Filter Treatment Bypasses

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

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

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

9.2.3. The Discharger shall submit a written report to the Los Angeles Water Board, according to the corresponding monthly self-monitoring report schedule. The report shall include, at a minimum, the information from the chronological log. Results from the daily effluent monitoring, required by 9.2.1. above, shall be verbally reported to the Los Angeles Water Board as the results become available and submitted as part of the monthly SMR.

9.3. Monitoring of Volumetric Data for Wastewater and Recycled Water

The State Water Board adopted "Water Quality Control Policy for Recycled Water" (Recycled Water Policy) on December 11, 2018 and the Recycled Water Policy became effective on April 8, 2019. The Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. As applicable, dischargers are additionally required to annually report recycled water use by volume and category of reuse. The State Water Board issued a Water Code Section 13267 and 13383 Order, Order WQ 2019-0037 EXEC, on July 24, 2019 (amended on January 14, 2020) to amend MRPs for all permits of NPDES, WDRs, WRRs, Master Recycling, and General WDRs. Annual reports are due by April 30 of each year, and the report must be submitted to GeoTracker. This Order implements the Recycled Water Policy by incorporating the volumetric monitoring reporting requirements in accordance with Section 3 of the Recycled Water Policy (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf). The State Water Board's Order WQ 2019-0037 EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

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

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

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

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

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

10.1.1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

10.1.2. If there is no discharge during any reporting period, the report shall so state.

10.1.3. Each monitoring report shall contain a separate section titled "Summary of 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.

10.1.4. The Discharger shall inform the Los Angeles Water Board well in advance of any proposed construction activity that could potentially affect compliance with applicable requirements.

10.1.5. Each monthly monitoring report shall include a determination of compliance with receiving water ammonia water quality objectives at RSW-002, RSW-004, RSW-005, RSW-006, RSW-007, RSW-009, and RSW-011. Any exceedances of an ammonia water quality objective shall be noted in the "Summary of Non-Compliance" section of the monitoring report.

10.2. Self-Monitoring Reports (SMRs)

10.2.1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website <http://www.waterboards.ca.gov/water_issues/programs/ciwqs>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

10.2.2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. The Discharger shall submit quarterly, semiannual, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order (other than for process/operational control, startup, research, or equipment testing), the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-10. 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

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

10.2.4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

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

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

10.2.5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and Attachment A. For purposes of reporting and administrative enforcement by the Los Angeles Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the

monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

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

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

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

10.2.7. The Discharger shall submit SMRs in accordance with the following requirements:

a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

10.3. Discharge Monitoring Reports (DMRs)

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

10.4. Other Reports

10.4.1. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – Section 6.3 in the Order. This includes submittals required by the compliance schedule requirements listed in the next table. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection10.2. above.

10.4.2. Annual Summary Report

By April 30 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent analytical results and receiving water monitoring data. The annual report shall contain an overview of any plans for upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit an annual report to the Los Angeles Water Board in accordance with the requirements described in subsection 11.2.7 above.

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

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

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

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

a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.
b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
c. Describe facilities and procedures needed for effective preventive and contingency plans.
d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational.

10.4.5. Climate Change Effects Vulnerability Assessment and Mitigation Plan

The Discharger shall consider the impacts of climate change as they affect the operation of the treatment facility due to flooding, wildfire, or other climate-related changes. The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Mitigation Plan (Climate Change Plan) to assess and manage

climate change-related effects that may impact the wastewater treatment facility's operation, water supplies, its collection system, and water quality, including any projected changes to the influent water temperature and pollutant concentrations, and beneficial uses. For facilities that discharge to the ocean including desalination plants, the Climate Change Plan shall also include the impacts from sea level rise. The Climate Change Plan is due 12 months after the effective date of this Order.

10.4.6. Annual Volumetric Reporting of Wastewater and Recycled Water

The Discharger shall electronically submit annual volumetric reports to the State Water Board by April 30 each year covering data collected during the previous calendar year using the State Water Board's GeoTracker website (geotracker.waterboards.ca.gov) under a site-specific global identification number. The annual volumetric report shall include information specified in section 9.3, above. A report upload confirmation from the GeoTracker data system, or other indication of completed submittals, shall be included in the annual report, which shall be submitted into CIWQS, by the report due date to demonstrate compliance with this reporting requirement.

ATTACHMENT F– FACT SHEET

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ATTACHMENT F – FACT SHEET

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

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4B190107020
Discharger	Joint Outfall System
Name of Facility	San Jose Creek Water Reclamation Plant
Facility Address	1965 South Workman Mill Road Whittier, CA 90601 Los Angeles County
Facility Contact, Title and Phone	Lysa Gaboudian, Supervising Engineer, (562) 908-4288
Authorized Person to Sign and Submit Reports	Lysa Gaboudian, Supervising Engineer, (562) 908-4288
Mailing Address	1955 Workman Mill Road, Whittier, CA 90601
Billing Address	Same as above
Type of Facility	POTW
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Recycling Requirements	Producer
Facility Permitted Flow	100 million gallons per day (mgd)
Facility Design Flow	100 mgd (62.5 East and 37.5 West)
Watershed	San Gabriel River Watershed
Receiving Water	San Gabriel River and San Jose Creek
Receiving Water Type	Inland surface water

1.1. The Joint Outfall System (hereinafter JOS, Discharger, or Permittee) owns and operates a Publicly Owned Treatment Works (POTW) comprised of the San Jose Creek Water Reclamation Plant (hereinafter San Jose Creek WRP or Facility) and its associated

wastewater collection system and outfalls. Ownership and operation of the Joint Outfall System is proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995, which parties include County Sanitation Districts of Los Angeles County Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 28, 29, and 34, and South Bay Cities Sanitation District of Los Angeles County, formerly referred to as the County Sanitation Districts of Los Angeles County. The San Jose Creek WRP, located at 1965 South Workman Mill Road, Whittier, California, consists of East and West Water Reclamation Plants, which have two independently operated units. As reported in the ROWD, the Plant has a combined design capacity of 100 million gallons per day (mgd), of which San Jose Creek East and West WRPs have individual design capacities of 62.5 MGD and 37.5 MGD respectively. For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Permittee herein.

1.2. The Facility discharges wastewater to San Gabriel River and San Jose Creek, waters of the United States. The Discharger was previously regulated by Order Number R4-2015-0070, National Pollutant Discharge Elimination System (NPDES) Permit Number CA0053911, adopted on by the Los Angeles Water Board April 9, 2015. This Order expired on May 31, 2020.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to 40 CFR 122.6(d) and California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits. The Discharger filed a report of waste discharge (ROWD) and applied for reissuance of its Waste Discharge Requirements (WDRs) and NPDES permit on December 3, 2019. Supplemental information was requested on February 24, 2020 and received on March 19, 2020. The application was deemed complete on March 23, 2020. A site visit was conducted on August 3, 2021, to observe operations and collect additional data to develop permit limitations and conditions. The terms and conditions of the previous NPDES order were automatically continued and remained in effect until new WDRs and NPDES permit were adopted pursuant to this Order. Attachments B1-B4 provide maps of the area around the Facility and site layouts. Attachment B5 shows the area of discharge for EFF-004 and EFF-005 when they will be constructed and permitted to discharge. Attachments C1 and C2 provide flow schematics of the Facility.

1.3. Applicable state law requires dischargers to file a petition with the State Water Board, Division of Water Rights (DWR) 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. On August 12, 2019, County Sanitation Districts of Los Angeles filed Wastewater Change Petition WW0107 with the State Water Board DWR to reduce discharge to San Jose Creek and San Gabriel River. The petition was approved to reduce discharge to San Jose Creek via Discharge Number 002 from a monthly average of 9.5 MGD to a minimum monthly average of 5 MGD and discharge to San Gabriel River via Discharge Number 001 from a monthly average of 5.4 MGD to zero, with some discharge only during wet weather. The redirected flow of treated water would be used for potable and non-potable purposes in areas serviced by Central Basin

Municipal Water District, Water Replenishment District of Southern California, Upper San Gabriel Valley Municipal Water District, and Walnut Valley Water District and also at Rose Hills Memorial Park. This is not an NPDES permit requirement. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211.

2. FACILITY DESCRIPTION

2.1. Description of Wastewater and Biosolids Treatment and Controls

2.1.1. The San Jose Creek WRP currently receives wastewater from the Cities of Arcadia, Azusa, Baldwin Park, Bradbury, Industry, Covina, Diamond Bar, Duarte, El Monte, Glendora, Irwindale, La Puente, La Verne, Monrovia, Pasadena, Pomona, Rosemead, San Dimas, San Gabriel, San Marino, Sierra Madre, Temple City, Walnut, West Covina, as well as some unincorporated areas. The wastewater is a mixture of domestic, industrial, and commercial wastewater that is pre-treated pursuant to 40 CFR Part 403. San Jose Creek WRP, including the East and West plants, has a design capacity of 100 mgd and serves an estimated population of 990,000 people.

The San Jose Creek WRP is part of an integrated network of facilities, known as the Joint Outfall System (JOS). The JOS incorporates the San Jose Creek WRP and six other wastewater treatment plants, which are connected by more than 1,200 miles of interceptors and trunk sewers. The upstream treatment plants (Whittier Narrows, Pomona, La Cañada, Long Beach, Los Coyotes, and San Jose Creek) are connected to the Joint Water Pollution Control Plant (JWPCP) located in Carson. This system allows for the diversion of influent flows into or around each upstream plant if so desired. Diverted flows not treated by upstream plants are ultimately treated at the JWPCP.

2.1.2. The Discharger has undertaken a full evaluation of local limits for the JOS, which is an interconnected system consisting of the Long Beach, Los Coyotes, Pomona, San Jose Creek and Whittier Narrows WRPs, as well as JWPCP, and La Canada WRP (non-industrial). Due to the interconnectedness of this system, it is appropriate to formally evaluate local limits for all treatment plants on the system at one time so that conditions throughout the system can be considered. The Districts have reviewed the discharge limitations in the NPDES permits issued to these facilities and have found that changes to existing local limits are not necessary to meet the limitations. The most recent local limits evaluation was submitted on April 26, 2018, finding that the existing limits were fully protective of the JOS system. However, a re-evaluation will be required following the renewal of the NPDES permit issued to JWPCP.

2.1.3. The Facility consists of East and West WRPs. The two WRPs independently utilize the same process trains which include influent pumping, primary sedimentation, activated sludge biological treatment with nitrification/denitrification, secondary sedimentation, coagulation, inert media filtration, chlorination for disinfection, and dechlorination. Sodium hypochlorite is used as a disinfectant at the Facility. The disinfecting agent is added to the treated effluent prior to the filters to destroy bacteria, pathogens and viruses, and to minimize algal growth in the filters.

Additional disinfectant may be dosed prior to the serpentine chlorine contact chamber. Prior to discharge, sodium bisulfite is added to the treated effluent to remove residual chlorine. The Facility also has a backup sodium bisulfite dechlorination system. Treated wastewater discharged to San Gabriel River and San Jose Creek is dechlorinated. Effluent from the Facility can be discharged to various outfalls as described below in Section 2.2. The water quality is the same to all of the outfalls.

2.1.4 The Permittee constructed a biological nutrient removal system with nitrogen de-nitrification process (NDN) in order to achieve compliance with the ammonia Basin Plan objectives. The system was completed and has been in operation since June 2003.

2.1.5 No facilities are provided for solids processing at the plant. Sewage solids separated from the wastewater are returned to the trunk sewer for conveyance to JWPCP for treatment and disposal under Order Number R4-2017-0180 (NPDES Number CA0053813).

2.2. Discharge Points and Receiving Waters

The Facility discharges tertiary-treated effluent via four discharge points (001, 001A, 001B, and 003) to the San Gabriel River. Tertiary-treated effluent is also discharged via one discharge point (002) to San Jose Creek, a tributary of the San Gabriel River (Attachment B2). Discharge Points 002 and 003 are the exclusive outfalls for the East and West plants, respectively, but effluent is not limited to those two outfalls. Discharge from the East and West plants can combine and be conveyed to Discharge Points 001, 001A, 001B or the San Gabriel River Spreading Grounds (SGRSG) using a pipeline that runs parallel to the San Gabriel River. The system is designed such that effluent can be discharged either from only one discharge point or multiple discharge points simultaneously. Water in the SGRSG can be conveyed to the Rio Hondo Spreading Grounds through an interconnecting pipeline. Discharge Points 004 and 005 are for future discharge into the San Gabriel River upstream from the Facility in the vicinity of the Santa Fe dam. All of the receiving waters are located within the San Gabriel River Watershed and are shown on Attachment B4. A portion of the treated wastewater (up to 14.8 MGD) is conveyed to Water Replenishment District's Groundwater Reliability Improvement Project Advanced Water Treatment Facility (GRIP-AWTF), which is regulated under Board Order Number R4-2018-0129. Treated effluent is discharged from the San Jose Creek WRP to surface waters at the following discharge points:

Discharge Point 001 (approximate coordinates: 33.930613° N, 118.107791° W): Discharge to San Gabriel River from both the East and West San Jose Creek WRPs.

Discharge Point 001 is the primary discharge point and is located approximately eight miles south of the plant, north of Firestone Boulevard. From this point, treated effluent flows directly into a lined, low flow channel (San Gabriel River) and travels about 9 miles prior to reaching the San Gabriel River Estuary. It is located in Reach 2 of the San Gabriel River, as defined in the Basin Plan, approximately 940 feet upstream of the division between Reach 1 and Reach 2. However, the San Gabriel River and Impaired Tributaries Metals and Selenium *Total Maximum Daily Load (SGR Metals TMDL)* considers Discharge Point 001 to be in Reach 1 of the San Gabriel River. For the purposes of this Order,

Discharge Point 001 is considered to lie in Reach 1 for the following reasons: TMDL implementation guidance makes this assumption; a concrete apron at the outfall in Reach 2 ensures all discharge is to Reach 1; and water quality objectives and beneficial uses are judged to be fully protected at and downstream from the outfall into Reach 1. The immediate downstream receiving water monitoring location (RSW-005) is also considered to be in Reach 1.

The same outfall pipe also delivers reclaimed water for groundwater recharge under a separate permit. The turnout used to divert reclaimed water to the SGRSG is located next to Discharge Point 001A, about halfway between the treatment plants and Discharge Point Number 001. This turnout is not a NPDES Discharge Point and water quality is not measured by the Permittee at the turnout.

Discharge Point 001A (approximate coordinates: 33.994405° N, 118.073476° W): Discharge to San Gabriel River from both the East and West San Jose Creek WRPs.

Treated effluent from Discharge Point 001A is allowed to recharge groundwater underneath the unlined San Gabriel River, when the headworks of the spreading grounds are unavailable due to maintenance or other constraints. It is located in Reach 2 of the San Gabriel River. The discharge used for recharge is subject to Water Reclamation Requirements (WRRs) in Order No. 91-100 and associated amendments R4-2009-0048 and R4-2009-0048-A01. The discharge to the surface water not conveyed to spreading grounds is subject to this NPDES permit.

Discharge Point 001B (approximate coordinates: 33.969771° N, 118.088866° W): Discharge to San Gabriel River from both the East and West San Jose Creek WRPs.

Treated effluent from Discharge Point 001B increases the groundwater recharge in the vicinity through the unlined San Gabriel River. Discharge point 001B (nearby Rubber Dam Number 4) is located at the San Gabriel Riverbank, approximately 1475 feet upstream of Slauson Avenue. The discharge used for recharge is subject to WRRs in Order Number 91-100 and associated amendments R4-2009-0048 and R4-2009-0048-A01. The discharge to the surface water not conveyed to spreading grounds is subject to this NPDES permit.

Discharge Point 002 (approximate coordinates: 34.035446° N, 118.021100° W): Discharge to San Jose Creek from the San Jose Creek East WRP. San Jose Creek is unlined from the discharge point to the San Gabriel River.

Treated effluent from Discharge Point 002 is allowed to recharge groundwater underneath San Jose Creek and can be conveyed through the San Gabriel River Pipeline to the San Gabriel River and SGRSG, and the Rio Hondo Spreading Grounds through an interconnecting pipeline. The discharge used for recharge at the spreading grounds is subject to WRRs in Order No. 91-100 and associated amendments R4-2009-0048 and R4-2009-0048-A01. The discharge to the surface water not conveyed to spreading grounds is subject to this NPDES permit, which establishes effluent limits that are protective of groundwater.

Discharge Point 003 (approximate coordinates: 34.036081° N, 118.030631° W): Discharge to the unlined San Gabriel River Reach 3 from the San Jose Creek West WRP.

Treated effluent from Discharge Point 003 is allowed to recharge groundwater underneath the San Gabriel River Reach 3 and is conveyed via various channels and diversion structures to either the Rio Hondo Spreading Grounds or the San Gabriel River Spreading Grounds. The discharge used for recharge is subject to WRRs in Order No, 91-100 and associated amendments R4-2009-0048 and R4-2009-0048-A01. The discharge to the surface water not conveyed to spreading grounds is subject to this NPDES permit.

Discharge Points 002 and 003 may also contribute flow to the Zone 1 ditch which connects the San Gabriel River to Whittier Narrows Dam and the Rio Hondo spreading grounds, although this is unlikely. LA County Public Works (Flood Control Division) controls the movement of the flows through the Zone 1 ditch for flood control and groundwater recharge operational flexibilities, but flow has not been observed in this area for at least 20 years. The redirection of flow for groundwater recharge through the Zone 1 ditch is covered under the WRRs in Order No. 91-100 and associated amendments R4-2009-0048 and R4-2009-0048-A01.

The SJC West Plant will have the ability to divert flow from Discharge Point 003 to Proposed Discharge Points 004 and 005 when they are permitted and constructed.

Discharge Point 004 (approximate coordinates: 34.111125° N, 117.971036° W): Proposed future discharge to the unlined Reach 4 of the San Gabriel River below Santa Fe Dam from the San Jose Creek West WRP.

Discharge Point 004 will be part of the Upper San Gabriel Valley Municipal Water District Indirect Reuse and Replenishment Project (IRRP), which is currently on hold until comments from DDW on the Title 22 engineering report have been addressed and recycled water availability is confirmed. The Title 22 engineering report was submitted in July 2017 and described construction of a nine-mile pipeline conveying treated effluent from San Jose Creek West WRP to a proposed Discharge Point 004 to be located at the Santa Fe Spreading Grounds, at a portion of the San Gabriel River between Drop Structures 1 and 2 below the Santa Fe Dam, located in Reach 4. Tertiary treated effluent from San Jose Creek West WRP can be transferred to Discharge Point 004 as soon as DDW has approved the Title 22 engineering report for the specific discharge and WDRs have been adopted by the Los Angeles Water Board for the area of discharge.

Before the SGR Metals TMDL was issued in 2007, the area of proposed Discharge Points 004 and 005 were referred to as Reach 3 of the San Gabriel River. References in regulatory documents to Reach 3, including TMDLs which precede that modification, will continue to apply to ensure beneficial uses remain protected. Both Reach 3 and Reach 4 of the San Gabriel River have the same beneficial uses as specified in the Basin Plan and also the same waste load allocations under the SGR Metals TMDL.

Discharge Point 005 (approximate coordinates: 34.131603° N, 117.950228° W): Proposed future discharge to the unlined Reach 5 of the San Gabriel River above Santa Fe Dam from the San Jose Creek West WRP.

This outfall is a part of the IRRP which is currently on hold as discussed under the previous section for Discharge Point 004. According to the July 2017 Title 22 engineering report, Discharge Point 005 would be located at the Santa Fe Spreading Grounds, at the Santa Fe Channel located in Reach 5. Discharge Point 005 can be used to discharge

tertiary treated effluent from San Jose Creek West WRP as soon as an engineering report is approved by DDW and WDRs are adopted.

During dry weather (May 1 – October 31), the primary sources of water flow in San Gabriel River, downstream of all of the discharge outfalls, are the San Jose Creek WRP effluent and other NPDES-permitted discharges, including urban runoff conveyed through the municipal separate storm sewer systems (MS4). Stormwater and dry weather urban runoff from MS4 are regulated under an NPDES permit, Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles (LA Municipal Permit), Order Number R4-2021-0105, NPDES Permit Number CAS004004.

The San Gabriel River and San Jose Creek are unlined near the points of discharge, except at Discharge Point 001. Groundwater recharge occurs, both incidentally and through separate WRRs, in these unlined areas of the San Gabriel River where the underlying sediments are highly transmissive to water and pollutants. This permit also functions as WDRs governing impacts to groundwaters. The Water Replenishment District of Southern California recharges the Rio Hondo and San Gabriel Spreading Grounds, located in the Montebello Forebay, with water purchased from JOS's Whittier Narrows, Pomona, and San Jose Creek WRPs, under WRRs Order Number 91-100, adopted by the Board on September 9, 1991 and associated amendments. The depth to groundwater is approximately 50 feet below ground surface in the vicinity of the receiving water, San Jose Creek and San Gabriel River, and near Discharge Points 002 and 003. Figure B-4 shows the depth to groundwater near San Jose Creek WRP.

The watershed, including the concrete-lined portion, supports a diversity of wildlife, particularly an abundance of avian species such as the Least Bell's Vireo, Tricolored Blackbird, and California Gnatcatcher. Aquatic life, such as fish, invertebrates, and algae also exist in the San Gabriel River Watershed.

2.3. Summary of Existing Requirements and SMR Data

The effluent at Discharge Points 001, 001A, 001B comes from the same pipeline, which may contain varying proportions of waste treated at San Jose Creek East and/or San Jose Creek West WRPs. Because the water quality at these outfalls is calculated from effluent discharged at Discharge Points 002 and 003, the summary of existing requirements and self-monitoring results focus only on EFF-002 and EFF-003. The effluent at Discharge Points 004 and 005 will contain waste treated at the San Jose Creek West Facility and will be transported via a pipeline separate from the pipeline discharging to Discharge Point 001, 001A and 001B.

Where multiple samples are not collected in a month or where the number of samples in a month varies, the highest measured concentration may be used as both the highest average monthly discharge and the highest daily discharge.

Effluent limitations contained in the existing Order for discharges from Discharge Point 002 (Monitoring Location EFF-002) and representative monitoring data from the term of the previous Order collected from June 2015 to December 2020 are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data at EFF 002

Parameter	Units	Current AMEL	Current AWEL	Current MDEL	Highest Avg. Monthly Conc.	Highest Avg. Weekly Conc.	Max. Daily Conc.
$BOD_5 20^oC$	mg/L	20	30	45	< 0.6	11.9	11.9
Total Suspended Solids (TSS)	mg/L	15	40	45	< 2.5	12.8	18.7
Oil and Grease	mg/L	10	---	15	3	---	3
Settleable Solids	ml/L	0.1	---	0.3	< 0.1	---	125
Residual Chlorine	mg/L	--	---	0.1	---	---	< 0.05
Total Dissolved Solids	mg/L	750	---	--	749	---	772
MBAS	mg/L	0.5	---	--	0.12	---	0.12
Chloride	mg/L	180	---	--	177	---	177
Sulfate	mg/L	300	---	---	159	---	159
Boron	mg/L	1	---	---	0.35	---	0.35
Nitrite-N (as N)	mg/L	1	---	---	0.099	---	0.099
Nitrate plus Nitrite as Nitrogen	mg/L	8	---	---	7.84	---	8.48
Ammonia Nitrogen (ELS present)	mg/L	4.2	---	6.1	1.4	---	1.4
Ammonia Nitrogen (ELS absent)	mg/L	5.4	---	7.8	1.36	---	1.36
Lead (wet weather)	µg/L	---	---	166	---	---	0.42
Selenium (dry weather)	µg/L	4.6	---	6.5	1.32	---	1.32
Benzo(a)Pyrene	µg/L	---	---	---	---	---	1.6
Benzo(k)Fluoranthene	µg/L	0.049	---	0.098	< 0.014	---	< 0.014
Chrysene	µg/L	0.049	---	0.098	< 0.014	---	< 0.014
Dibenzo(a,h) Anthracene	µg/L	0.049	---	0.098	< 0.014	---	< 0.014
Indeno(1,2,3-cd)Pyrene	µg/L	0.049	--	0.098	< 0.013	--	< 0.013
Dieldrin	µg/L	---	---	---	---	---	0.008
Total Trihalomethanes (TTHM)	µg/L	80	---	---	83.2	---	88.9

Parameter	Units	Current AMEL	Current AWEL	Current MDEL	Highest Avg. Monthly Conc.	Highest Avg. Weekly Conc.	Max. Daily Conc.
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % Effect < 50	Fail (33 out of 116 tests)	---	Percent Effect of 100%

Effluent limitations contained in the existing Order for discharges from Discharge Point 003 (Monitoring Location EFF-003) and representative monitoring data from the term of the previous Order, as reported by the Permittee, are as follows:

Table F-3. Historic Effluent Limitations and Monitoring Data EFF-003

Parameter	Units	Current AMEL	Current AWEL	Current MDEL	Highest Avg. Monthly Conc.	Highest Avg. Weekly Conc.	Max. Daily Conc.
$BOD_5$20°C	mg/L	20	30	45	< 0.6	< 0.6	<0.6
Total Suspended Solids (TSS)	mg/L	15	40	45	< 2.5	< 2.5	< 2.5
Oil and Grease	mg/L	10	---	15	< 1.2	---	< 1.2
Settleable Solids	ml/L	0.1	---	0.3	< 0.1	---	< 0.1
Residual Chlorine	mg/L	--	---	0.1	---	---	< 0.05
Total Dissolved Solids	mg/L	750	---	---	618	---	620
MBAS	mg/L	0.5	---	---	< 0.03	---	< 0.03
Chloride	mg/L	180	---	---	144	---	144
Sulfate	mg/L	300	---	---	98.7	---	98.7
Boron	mg/L	1	---	---	0.35	---	0.35
Fluoride	mg/L	1.6	---	---	0.731	---	0.731
Nitrite-N (as N)	mg/L	1	---	1	0.071	---	0.071
Nitrate plus Nitrite as Nitrogen	mg/L	8	---	8	7.86	---	8.32
Ammonia Nitrogen (ELS present)	mg/L	4.0	---	6.3	0.709	---	0.709
Ammonia Nitrogen (ELS absent)	mg/L	5.0	---	7.8	1.35	---	1.35
Dieldrin	µg/L	---	---	---	0.003	---	0.003
Heptachlor	µg/L	---	---	---	0.008	---	0.008
2,3,7,8-TCDD (dioxin)	pg/L	---	---	---	3.1	---	3.1
Iron	µg/L	---	---	---	---	---	31
TTHM	µg/L	80	---	---	80.2	---	80.2

Parameter	Units	Current AMEL	Current AWEL	Current MDEL	Highest Avg. Monthly Conc.	Highest Avg. Weekly Conc.	Max. Daily Conc.
Chronic Toxicity	Pass or Fail, % Effect (TST)	Pass	---	Pass or % Effect <50	Fail (11 out of 105 tests)	---	Percent effect of 92.1 %

2.4. Compliance Summary

The following table lists the Facility's exceedances of effluent limitations in Order R4-2015-0070 that occurred during the period between June 2015 to December 2020. Note that each MMEL exceedance is either due to 2 failed toxicity tests in the month or an individual fail.

Table F-4. Summary Table of Exceedances

Date of Exceedance	Pollutant	Effluent Limitation	Reported value
12/31/20	Chronic Toxicity, MMEL	Pass	Fail
12/3/20	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 80% effect
11/30/20	Chronic Toxicity, MMEL	Pass	Fail
10/6/20	Chronic Toxicity, MMEL	Pass	Fail
8/3/20	Chronic Toxicity, MMEL	Pass	Fail
6/11/20	Chronic Toxicity, MMEL	Pass	Fail
3/25/20	Chronic Toxicity, MMEL	Pass	Fail
12/31/19	Chronic Toxicity, MMEL	Pass	Fail
12/26/19	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 58.1%
12/26/19	Turbidity	Avg 2 NTU in 24 hrs, 5 NTU in 72 minutes, 10 NTU at any time	>10 NTU for 116 minutes
11/6/19	Foam	No Foam	Foam
10/31/19	Chronic Toxicity, MMEL	Pass	Fail
10/29/19	Foam	No Foam	Foam
9/30/19	Chronic Toxicity, MMEL	Pass	Fail
7/31/19	Chronic Toxicity, MMEL	Pass	Fail
6/30/19	Chronic Toxicity, MMEL	Pass	Fail
5/31/19	Chronic Toxicity, MMEL	Pass	Fail
2/14/19	Settleable Solids, MDEL	0.3 mL/L	80 mL/L
2/14/19	Total Coliform, MDEL	240 MPN or CFU/100 mL	10,000 CFU/100 mL

Date of Exceedance	Pollutant	Effluent Limitation	Reported value
2/14/19	Turbidity	Avg 2 NTU in 24 hrs, 5 NTU in 72 minutes, 10 NTU at any time	6.9 NTU in 24 hrs, >5 NTU for 773 minutes, >10 NTU for 559 minutes
2/2/19	Turbidity	Avg 2 NTU in 24 hrs, 5 NTU in 72 minutes, 10 NTU at any time	>5 NTU for 440 minutes, >10 NTU for 291 minutes
12/31/18	Chronic Toxicity, MMEL	Pass	Fail
12/11/18	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 64.5%
9/30/17	Chronic Toxicity, MMEL	Pass	Fail
9/14/17	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 57.9%
8/31/17	TTHM, AMEL	80 µg/L	82.3 µg/L
3/31/17	Chronic Toxicity, MMEL	Pass	Fail
2/17/17	Turbidity	Avg 2 NTU in 24 hrs, 5 NTU in 72 minutes, 10 NTU at any time	>5 NTU for 113 minutes, >10 NTU for 01 minutes
1/22/17	Turbidity	Avg 2 NTU in 24 hrs, 5 NTU in 72 minutes, 10 NTU at any time	8 NTU in 24 hrs, >5 NTU for 590 minutes, >10 NTU for 566 minutes
7/31/16	Chronic Toxicity, MMEL	Pass	Fail
7/13/16	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 92.1% effect
2/16/16	TTHM, AMEL	80 µg/L	83.2 µg/L
12/3/15	Chronic Toxicity, MDEL	Pass, < 50% effect	Fail, 52.2% effect
11/30/15	Chronic Toxicity, MMEL	Pass	Fail

There were exceedances from Discharge Point 002 for settleable solids and TTHM as can be seen in Table F-4. There was one exceedance for settleable solids on February 14, 2019. The discharger reported the exceedance and stated in the monthly report that the exceedance was due to heavy rainfall that caused high secondary turbidity and settleable solids which overloaded the tertiary filter and caused bypass flow. Discharge was chlorinated and dechlorinated before release to receiving waters. Monthly average limits were exceeded for TTHM in February 2016 and August 2017. These exceedances were reported in the monthly reports. The discharger believes the exceedances were caused by variability in influent quality and rapidly changing flows. There have been no enforcement actions taken against the TTHM violations or any other violations during the permit term yet.

The Discharger has been conducting an ongoing toxicity reduction evaluation (TRE) and toxicity identification evaluations (TIE) since a chronic toxicity MMEL exceedance and subsequent accelerated toxicity test failure at the East facility in May 2019. Three

Ceriodaphnia dubia toxicity tests using TST were conducted in May 2019. The first test failed. Two additional tests were conducted in the same month of which one passed and one failed, resulting in an MMEL exceedance. As required by the MRP, accelerated testing began June 7, 2019. The first accelerated test and a subsequent test initiated June 13, 2019 both failed TST, resulting in an MMEL exceedance. Due to failed accelerated tests, the TRE began June 18, 2019. In accordance with the Detailed TRE Work Plan, the Discharger reviewed industrial waste data and conducted a facility performance evaluation but did not determine either of them to be a cause of the observed toxicity. Continuing to the next step of the TRE Work Plan, toxicity identification evaluations began in August 2019. Since September 2020, the Discharger has also consulted with toxicity experts at Exponent Engineering and Scientific Consulting. Although the TIE has not yet identified the cause of toxicity, potential sources such as ammonia, metals, and organics have been eliminated. Investigations will continue but so far results are consistent with an ionic imbalance.

A TRE was also initiated earlier during the permit term in December 2015 after an MMEL exceedance was observed in discharge samples from SJC East and West plants and receiving water samples at RSW-001 and RSW-002 in November 2015 followed by an accelerated testing exceedance from the SJC East plant in December 2015. The Discharger completed Steps 1 and 2 of the TRE Workplan and no information indicated that either operational or industrial waste activities were responsible for the observed toxicity. Composited accelerated test samples originally identified as toxic were subsequently identified as non-toxic when tested at another laboratory. Following testing in January 2016, which showed no toxicity exceedances, the TRE was concluded, and a final report was submitted to the Los Angeles Water Board on February 26, 2016.

The exceedances for turbidity, settleable solids, and total coliform occurred during heavy rainfall which caused elevated flows to overload the tertiary filters, resulting in tertiary filter bypasses. All bypass flow was chlorinated and dechlorinated prior to discharge. The Discharger laboratory staff found no adverse biological effects during field observations. The bypass flows were not violations because they were necessary to prevent severe property damage, there were no feasible alternatives, and notice was submitted to the LA Water Board (Order R4-2015-0070, Attachment D, Section I.G.3.).

The foam discharge events were observed by sampling staff and resolved after operations staff adjusted the defoamant dose. Facility staff will continue visual inspections of the outfalls and adjust the defoamant dosing when needed.

In addition to the exceedances noted above, there were violations associated with deficient monitoring, including missed sampling events and the improper analysis of coliform and BOD_5. Several steps have been taken to prevent reoccurrence of these incidences such as reviewing the Standard Operating Procedures for sample collection and scheduling to ensure correct practices, improving internal lab coordination to ensure requirements are met prior to the end of the monitoring period and improving media deliveries between lab sites. Where possible, make-up samples were collected.

2.5. Planned Changes

In the ROWD for the previous permit Order R4-2015-0070, the discharger notified the Los Angeles Water Board that two discharge outfalls, Discharge Points 004 and 005, would be

used for the IRRP groundwater recharge project managed by USGVMD. The Discharger contacted USGVMD before submitting the ROWD for this permit to get a status update on the project. USGVMD wants to keep the proposed discharge points in the ROWD because construction on the project has not yet begun. As described in the previous permit, up to 10,000 acre-feet per year (8.93 mgd) would flow through a nine-mile pipeline to Discharge Points 004 and 005 near the Santa Fe Dam as shown in Attachment B1. A map of the IRRP area and proposed outfalls is shown in Attachment B5. Previous discharge locations associated with this project were described in Order R4-2009-0078 but have not been constructed to date. Discharge from the IRRP at proposed future locations is contingent upon the issuance of Waste Discharge Requirements (WDRs) for the Permittee and other project sponsors in addition to the Upper San Gabriel Valley Municipal Water District. The Los Angeles County Department of Public Works (LACDPW) operates and manages the river channel and pipelines used to transport suitably treated wastewater to the San Gabriel River. The Main San Gabriel Basin Watermaster, a special state agency, is charged with the responsibility of replenishing and monitoring the groundwater quality of the San Gabriel Groundwater Basins. Discharge Points 004 and 005 are expected to deliver advanced treated water to the IRRP and are included in this Order. Recycled water use from San Jose Creek WRP is permitted for non-potable applications under Order Nos. 87-50 and 97-072. However, neither Order permits the recycled water use for groundwater replenishment through surface application for the proposed project area, as regulated in DDW's Groundwater Reuse and Replenishment using Recycled Water adopted in June of 2014. Discharge from such outfalls cannot begin until the DDW has approved a Title 22 Engineering Report and the WRR has been adopted by the Los Angeles Water Board. In the event that this project goes forward, depending upon the final design and the exact location of spreading, this NPDES permit may need to be revised accordingly.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

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

3.2. California Environmental Quality Act (CEQA)

Under Water Code section 13389 and 13301, this action to adopt an NPDES permit for an existing facility is exempt from CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

3.3.1. Water Quality Control Plan. The Water Quality Control Plan for the Los Angeles Region (Basin Plan) designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those

objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan.

Beneficial uses applicable to San Jose Creek and San Gabriel River are as follows:

Table F-5. Basin Plan Beneficial Uses and Features – Surface Waters

Discharge Point	Hydrologic Unit Code (HUC)	Receiving Water Name	Beneficial Use(s)
001	180701060606 (formerly Calwater Hydro Unit 405.15)	San Gabriel River Reach 1 (Firestone Blvd to Estuary)	**Existing:** Water contact recreation (REC-1, note a) and non-contact water recreation (REC-2) **Potential:** Municipal and domestic water supply (MUN, note b), warm freshwater habitat (WARM), and wildlife habitat (WILD).
001	180701060606 (formerly Calwater Hydro Unit 405.15)	San Gabriel River Estuary	**Existing:** IND, navigation (NAV), REC-1 (note a), REC-2, commercial and sport fishing (COMM), estuarine habitat (EST), marine habitat (MAR), WILD, RARE, migration of aquatic organisms (MIGR), and spawning, reproduction, and/or early development (SPWN). **Potential:** shell harvesting (SHELL)
001A and 001B	180701060606 (formerly Calwater Hydro Unit 405.15)	San Gabriel River Reach 2 (Whittier Narrows Dam to Firestone Blvd.)	**Existing:** REC-1 (note a), REC-2, WILD, and threatened, or endangered species (RARE); **Intermittent:** Groundwater recharge (GWR) and WARM; **Potential:** Industrial service supply (IND), and industrial process supply (PROC), and MUN (note b).
002	180701060502 (formerly Calwater Hydro Unit 405.41)	San Jose Creek Reach 1	**Existing:** WILD; **Intermittent:** GWR, REC-2, and WARM; **Potential:** REC-1 (Note a), and MUN (Note b)

Discharge Point	Hydrologic Unit Code (HUC)	Receiving Water Name	Beneficial Use(s)
003	180701060601 (formerly Calwater Hydro Unit 405.41)	San Gabriel River Reach 3 (Whittier Narrows to Ramona Blvd)	**Existing:** WILD **Intermittent:** GWR, WARM, REC-1 (note a), REC-2 **Potential:** MUN (note, b)
004	180701060601 (formerly Calwater Hydro Unit 405.41)	San Gabriel River Reach 4 (Ramona Blvd to Sana Fe Dam)	**Existing:** WILD **Intermittent:** GWR, WARM, REC-1 (note a), REC-2 **Potential:** MUN (note b)
005	180701060601 (formerly Calwater Hydro Unit 405.41)	San Gabriel River Reach 5 (Santa Fe Dam to Huntington Drive)	**Existing:** WILD **Intermittent:** GWR and WARM **Potential:** MUN (note b)

Footnotes for Table F-5

a. Although the Los Angeles County Department of Public Works post signs prohibiting access to the San Gabriel River in concrete-channelized areas, its tributaries and estuary, this reach is designated with the REC-1 beneficial use in the Basin Plan. The public has been observed fishing and wading across the river. There is public access to the San Gabriel River, its tributaries, and estuary through the bike trails that run parallel to the river. Since there is public contact in the receiving water downstream of the discharge, the quality of wastewater discharged to the San Jose Creek and San Gabriel River must be such that no public health hazard is created.

b. The potential municipal and domestic supply (MUN) beneficial use for the water body is consistent with the Sources of Drinking Water Policy (page 5-13 of the Basin Plan). However, the Los Angeles Water Board has only conditionally designated the MUN beneficial use. Therefore, the Los Angeles Water Board is not establishing effluent limitations at this time.

End of footnotes for Table F-5

Beneficial uses of the receiving groundwaters are as follows:

Table F-6. Basin Plan Beneficial Uses – Groundwaters

Discharge Point	Basin Name	Beneficial Use(s)
002, 003, 004, and 005	San Gabriel Valley, DWR Basin Number 4-13	Existing: (MUN), (IND), (PROC), and (AGR).
001A and 001B	Coastal Plain of Los Angeles (Central Basin), DWR Basin Number 4-11.04	Existing: (MUN), (IND), (PROC), and (AGR).

This permit establishes waste discharge requirements to protect these groundwater beneficial uses. See section 5.2 of this factsheet.

3.3.2. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants.

3.3.3. State Implementation Policy. On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Los Angeles Water Board in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

3.3.4. Domestic Water Quality. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.

3.3.5. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes (40 CFR section 131.21, 65 Federal Register 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

3.3.6. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on BOD, TSS, and percent removal of BOD and TSS. Restrictions on BOD and TSS are discussed in section 4.2.2. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, to comply with federal anti-backsliding requirements, this Order contains WQBELs that are carried over from the previous permit.

WQBELs have been scientifically derived to implement water quality objectives (WQOs) that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and statewide

water quality control plans were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA. The final effluent limitations for these pollutants are described in additional detail in section 4.3.2 of the Fact Sheet.

3.3.7. Antidegradation Policy. Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution 68-16. This Order is consistent with antidegradation policies, as discussed in section 4.4.2 of the Fact Sheet.

3.3.8. Anti-Backsliding Requirements. Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(*l*) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. This Order complies with anti-backsliding provisions.

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

3.3.10. Water Rights. Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Discharger must file a petition with the State Water Board, Division of Water Rights, and receive approval for such a change from the State Water Board. The State Water Board retains the jurisdictional authority to enforce such requirements under Water Code section 1211. On August 12, 2019 County Sanitation Districts of Los Angeles filed Wastewater Change Petition WW0107 with the State Water Board, DWR to reduce discharge to San Jose Creek and San Gabriel River. The petition was approved to reduce discharge

to San Jose Creek via Discharge Number 002 from a monthly average of 9.5 MGD to a minimum monthly average of 5 MGD and discharge to San Gabriel River via Discharge Number 001 from a monthly average of 5.4 MGD to zero, with some discharge only during wet weather. The redirected flow of treated water would be used for potable and non-potable purposes in areas serviced by Central Basin Municipal Water District, Water Replenishment District of Southern California, Upper San Gabriel Valley Municipal Water District, and Walnut Valley Water District and also at Rose Hills Memorial Park.

3.3.11. Water Recycling. In accordance with statewide policies concerning water reclamation (See, e.g., Water Code sections 13000 and 13550-13557, State Water Board Resolution Number 77-1 (Policy with Respect to Water Reclamation in California), and State Water Board Resolution Number 2009-0011, 2013-0003, and 2018-0057 (Recycled Water Policy), the Los Angeles Water Board strongly encourages, wherever practical, water recycling, water conservation, and use of stormwater and dry-weather urban runoff. However, those recycling efforts shall consider the necessity of a water rights 1211 application which would be necessary if the additional recycling would reduce the current discharge flow rate to the affected water body. The Discharger included a report, “Information on Maximizing Recycling Water Usage” with the ROWD for this permit which detailed recycled water usage in the Joint Outfall System service area, including San Jose Creek WRP. Reporting of recycled water use shall be included in the annual report submittal as described in the MRP.

The State Water Board adopted “Water Quality Control Policy for Recycled Water” (Recycled Water Policy) on February 3, 2009. The State Water Board amended the Recycled Water Policy on January 22, 2013 and December 11, 2018. The 2018 amendments became effective on April 8, 2019. The Recycled Water Policy requires wastewater and recycled water dischargers to annually report monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. As applicable, dischargers are additionally required to annually report recycled water use by volume and category of reuse. The State Water Board issued a Water Code Section 13267 and 13383 Order, Order WQ 2019-0037 EXEC, on July 24, 2019 (amended January 14, 2020) to amend MRPs for all permits of NPDES, WDRs, WRRs, Master Recycling, and General WDRs. Annual reports are due by April 30 of each year, and the report must be submitted to GeoTracker. This Order implements the Recycled Water Policy by incorporating the volumetric monitoring reporting requirements in accordance with Section 3 of the Recycled Water Policy (https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/121118_7_final_amendment_oal.pdf). The State Water Board’s Order WQ 2019-0037 EXEC will no longer be applicable to the Discharger upon the effective date of this Order.

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

3.3.13. Sewage Sludge and Biosolids Requirements.

Section 405 of the CWA and implementing regulations at 40 CFR part 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The state has not been delegated the authority by USEPA to implement this program. The Permittee is responsible for meeting all applicable requirements of 40 CFR Part 503 that are under USEPA's enforcement authority.

3.3.14. Pretreatment Requirements. The application of pretreatment requirements is monitored by the Discharger and the permit will be reopened when additional pretreatment requirements are determined to be applicable to the discharge. The Permittee has developed and is implementing a Pretreatment Program that was previously approved by USEPA. This Order requires implementation of the approved Pretreatment Program. There are 303 categorical industrial user (CIU) permittees, 822 significant industrial user (SIU) permittees, and 1,312 other industrial users in the Sanitation District's entire Pretreatment Program. The SJC WRP receives wastewater from 228 total industrial users, including 106 SIUs and 45 CIUs. Any change to the Pretreatment Program shall be reported to the Los Angeles Water Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR § 403.18. The Discharger shall comply with requirements contained in Attachment H – Pretreatment Reporting Requirements.

3.3.15. Mercury Provisions. The State Water Board adopted "*Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California-Tribal and Subsistence Fishing Beneficial Uses and Mercury Provisions*" (Mercury Provisions) through Resolution Number 2017-0027, which was approved by OAL on June 28, 2017, and became effective upon USEPA approval on July 14, 2017. The Mercury Provisions established one narrative and four numeric water quality objectives for mercury and three new beneficial use definitions, implemented through NPDES permits issued pursuant to CWA section 402, waste discharge requirements, or waivers of waste discharge requirements. The Provisions included implementation provisions for individual non-stormwater NPDES permits for municipal and industrial dischargers; stormwater discharges including MS4 discharges and discharges regulated by the Industrial General Permit (NPDES No. CAS000001); mine site remediation; nonpoint source discharges; dredging activities; and wetland projects.

The Mercury Provisions contain provisions that apply to POTWs and individual industrial discharges. The Mercury Provisions converted the fish tissue-based water quality objectives to water column values, denoted as "C". The implementation section of the Mercury Provisions requires the application of section 1.3 of SIP with modifications to determine whether a discharge has reasonable potential to cause or contribute to an exceedance of the water column concentration for mercury and the development of effluent limitations for mercury based on the water quality objective applicable to the receiving water in accordance with Chapter IV.D.2.b in Mercury Provisions (See Section 4.3.3 of Fact Sheet for SIP procedures).

The Mercury Provisions convert the fish tissue-based water quality objectives into water column values to be used for reasonable potential analysis and development

of effluent limitations. The objective for San Gabriel River and San Jose Creek, which are flowing water bodies, is 12 ng/L total mercury. The annual averages of effluent sample testing results ranged from 1 ng/L to 4 ng/L during the monitoring period from June 2015 to December 2020. According to the Mercury Provisions, a water quality-based effluent limitation is not required unless the highest observed annual average effluent mercury concentration is greater than the applicable objective (water column concentration, 12 ng/L). Since the data indicated that there is no reasonable potential to cause or contribute to an excursion above the water quality standard, no effluent limitations for mercury are established in this Order. However, monitoring requirements for mercury in the effluent and receiving water are included in Attachment E with the new detection limit of 0.5 ng/L, which the Mercury Provisions specify as a quantification limit for the water samples.

3.3.16. Bacteria Provisions. The State Water Board adopted "*Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California Bacteria Provisions and Water Quality Standards Variance Policy*" (ISWEBE) through Resolution Number 2018-0038, which was approved by OAL on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The Bacteria Provisions establish *Escherichia coli* (*E. coli*) as the sole indicator of pathogens in freshwater. These *E. coli* water quality objectives supersede any numeric water quality objectives for bacteria for the protection of the REC-1 beneficial use in Los Angeles Water Board Basin Plans prior to the effective date of the Bacteria Provisions, except in certain circumstances, such as where there are existing final effluent limitations based on Title 22 requirements that are more stringent than ISWEBE Bacteria Provisions; or Waste Load Allocations (WLAs) established by a Total Maximum Daily Load (TMDL) in effect prior to March 22, 2019. The San Gabriel River Indicator Bacteria TMDL establishes WLAs for the San Jose Creek WRP equal to the existing total coliform effluent limitations.

This Order includes permit effluent limitations based on the San Gabriel River Bacteria TMDLs and Title 22 disinfected tertiary treated wastewater for the protection of human health. These Title 22 disinfection requirements are more stringent than the Bacteria Provision effluent limitations. Therefore, the limitations based on the Bacteria Provisions are not used in this Order, the Title 22 based effluent limitations are retained. In addition, USEPA states in their "NPDES Water Quality Based Permit Limits for Recreational Water Quality Criteria (2015)" that it expects the direct application of criteria values at the end-of-pipe approach where the objective is applied directly as permit limits at the discharge point. Since the effluent limitations are applied at the discharge point (end-of-pipe) based on Title 22, which are more stringent than the ISWEBE Bacteria Provisions, additional receiving water limitations are not established.

3.3.17. Toxicity Provisions. Beginning in May 2013 the Los Angeles Water Board began incorporating into the NPDES permits for POTWs and industrial facilities numeric water quality objectives for both acute and chronic toxicity, using the Test of Significant Toxicity (TST), and a program of implementation to control toxicity. As explained later in the Fact Sheet, this approach is a preferred statistical method because it provides a higher confidence in results classifying in-waste stream concentrations as toxic or non-toxic and it is supported by US EPA. This method is

used in the existing permit and would be carried over into this permit. On December 1, 2020, the State Water Board adopted statewide numeric water quality objectives for both acute and chronic toxicity, using the TST, and a program of implementation to control toxicity, which are collectively known as the Toxicity Provisions. The Toxicity Provisions provide consistent protection of aquatic life beneficial uses in inland surface waters, enclosed bays, and estuaries throughout the state, and protect aquatic habitats and life from the effects of known and unknown toxicants. The Provisions are not yet in effect. The Provisions will take effect upon approval by the California Office of Administrative Law for purposes of state law and upon approval by the U.S. Environmental Protection Agency for purposes of federal law.

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

The State Water Board adopted the California 2014 and 2016 Integrated Report based on a compilation of the Regional Water Boards' Integrated Reports. These Integrated Reports contain both the Clean Water Act (CWA) section 305(b) water quality assessment and section 303(d) list of impaired waters. In developing the Integrated Reports, the Water Boards solicit data, information and comments from the public and other interested persons. On October 03, 2017 the State Water Board approved the CWA Section 303(d) List portion of the State's 2014 and 2016 Integrated Report (State Water Board Resolution Number 2017-0059). On April 06, 2018, the USEPA approved California's 2014 and 2016 Integrated Report. The CWA section 303(d) List can be found at the following link: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml.

San Jose Creek, San Gabriel River, and their tributaries are in California's 2014 and 2016 Integrated Report and the following are the identified pollutants impacting the receiving water for San Jose Creek WRP:

San Jose Creek Reach 1 (San Gabriel Confluence to Temple Street) – Calwater Watershed 180701060502

Pollutants: Toxicity, ammonia, pH, total dissolved solids, indicator bacteria

San Gabriel River Reach 3 (Ramona Blvd. to Whittier Narrows Dam) – Calwater Watershed 180701060601

Pollutant: Indicator bacteria

San Gabriel River Reach 2 (Whittier Narrows Dam to Firestone Blvd.) – Calwater Watershed 180701060606

Pollutants: Lead, cyanide, water temperature

San Gabriel River Reach 1 (Firestone Blvd. to San Gabriel River Estuary) – Calwater Watershed 180701060606

Pollutants: Water temperature and pH

San Gabriel River Estuary

Pollutants: Nickel, dissolved oxygen, copper, dioxin, indicator bacteria

3.5. Other Plans, Polices and Regulations

3.5.1. Climate Change Adaptation and Mitigation

On March 07, 2017 the State Water Board adopted a resolution in recognition of the challenges posed by climate change that requires a proactive approach to climate change in all State Water Board actions, including drinking water regulation, water quality protection, and financial assistance (Resolution Number 2017-0012). The resolution lays the foundation for a response to climate change that is integrated into all State Water Board actions, by giving direction to the State Water Board divisions and encouraging coordination with the Los Angeles Water Boards. The Los Angeles Water Board also adopted "A Resolution to Prioritize Actions to Adapt and Mitigate the Impacts of Climate Change on the Los Angeles Region's Water Resources and Associated Beneficial Uses" (Resolution Number R18-004) on May 10, 2018. The resolution summarizes the steps taken so far to address the impacts of climate change within the Los Angeles Water Board's programs and lists a series of steps to move forward. These include the identification of potential regulatory adaptation and mitigation measures that could be mitigated on a short-term and long-term basis by each of the Los Angeles Water Board's programs to take into account, and assist in mitigating where possible, the effects of climate change on water resources and associated beneficial uses. This Order contains provisions to require planning and actions to address climate change impacts in accordance with both the State and Los Angeles Water Boards' resolutions.

The Permittee shall develop a Climate Change Effects Vulnerability Assessment and Management Plan (Climate Change Plan) and submit the Climate Change Plan to the Los Angeles Water Board for the Executive Officer's approval no later than 12 months after the effective date of this Order. The Climate Change Plan shall include an assessment of short and long term vulnerabilities of facilities and operations as well as plans to address vulnerabilities of collection systems, facilities, treatment systems, and outfalls for predicted impacts in order to ensure that facility operations are not disrupted, compliance with permit conditions is achieved, and receiving waters are not adversely impacted by discharges. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate climate-induced impacts including, but not limited to, changing influent and receiving water quality and conditions, as well as the impact of rising sea level (where applicable), wildfires, storm surges, and back-to-back severe storms, which are expected to become more frequent.

3.5.2. Sources of Drinking Water Policy. On May 19, 1988, the State Water Board adopted Resolution Number 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 Los Angeles Water Board adopted Resolution Number 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). This permit is designed to be consistent with the existing Basin Plan.

3.5.3. Title 22 of the California Code of Regulations (CCR Title 22). The State Water Resources Control Board, Division of Drinking Water, established primary and secondary maximum contaminant levels (MCLs) for inorganic, organic, and radioactive contaminants in drinking water. These MCLs are codified in Title 22. The Basin Plan (Chapter 3) incorporates Title 22 primary MCLs by reference. This incorporation by reference is prospective, including future changes to the incorporated provisions as the changes take effect. Title 22 primary MCLs have been used as bases for effluent limitations in WDRs and NPDES permits to protect groundwater recharge (GWR) beneficial use when that receiving groundwater is designated as MUN. 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." This Order contains effluent limitations based on Title 22 primary MCLs to protect GWR beneficial uses.

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

3.5.5. Stormwater. CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for stormwater discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, General NPDES Permit Number CAS000001 and Waste Discharge Requirements for Discharges of Stormwater Associated with Industrial Activities (IGP). This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order Number 97-03-DWQ to regulate stormwater discharges associated with industrial activity. On June 4, 1992, the Permittee filed an initial Notice of Intent (NOI) to comply with the requirements of the general permit. General NPDES Permit Number CAS000001 was revised on April 1, 2014 (Order 2014-0057-DWQ) and became effective on July 1, 2015. Order 2014-0057-DWQ has since been amended on August 4, 2015 and November 6, 2018. The latest amendment became effective on July 1, 2020.

On June 2, 2015, the Permittee submitted a new NOI to comply with the requirement of the new IGP. The Permittee developed and currently implements a Stormwater Pollution Prevention Plan (SWPPP), to comply with the State Water Board's General NPDES permit Number CAS000001.

3.5.6. Sanitary Sewer Overflows (SSOs). The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code (USC) sections 1311 and 1342). The Discharger must comply with State Water Board Water Quality Order Number 2006-0003-DWQ, Statewide *General Waste Discharge Requirements for Sanitary Sewer Systems* ((SSS WDRs) as amended by State Water Board Order Number WQ 2013-0058-exec and any subsequent order updating these requirements. These statewide WDRs require public agencies that own or operate sanitary sewer systems with greater

than one mile of sewer lines to enroll for coverage, comply with requirements to develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSS WDRs, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any noncompliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order in sections 6.3.3.b. (Spill Cleanup Contingency Plan section), 6.3.4. (Construction, Operation and Maintenance Specifications section), and 6.3.6. (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSS WDRs. The Los Angeles Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSS WDRs requirements, related to the collection systems. The requirements of the SSS WDRs are considered the minimum thresholds (see Finding 11 of State Water Board Order Number 2006-0003- DWQ). To encourage efficiency, the Los Angeles Water Board will accept the documentation prepared by the permittees under the SSS WDRs for compliance purposes as satisfying the requirements in sections 6.3.3.b, 6.3.4, and 6.3.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSS WDRs, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSS WDRs, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative. The requirements of this permit are more stringent that the SSS WDRs because in addition to the SSS WDRs requirements, this NPDES permit requires water quality monitoring of the receiving water when the spill reaches the surface water.

3.5.7. Watershed Management. The Los Angeles Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region. Information about watersheds in the region can be obtained at the Los Angeles Water Board's website at http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml. 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.

This 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 for the San Gabriel River, which was approved by the Los Angeles Water Board on September 25, 2006.

3.5.8. 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. San Gabriel River and Impaired Tributaries Metals and Selenium TMDL - On March 26, 2007, USEPA established the San Gabriel River and Impaired Tributaries Metals and Selenium TMDL (San Gabriel River Metals TMDL). This Order includes effluent limitations for metals established by the TMDL. On June 6, 2013, the Los Angeles Water Board adopted Resolution R13-004, amending the Basin Plan to incorporate an Implementation Plan for the *San Gabriel River Metals TMDL*. This implementation plan was approved by the State Water Board, Office of Administrative Law, and USEPA on March 4, 2014, October 13, 2014, and May 11, 2017, respectively. These effluent limitations are consistent with the concentration-based Waste Load Allocations (WLA) established for the POTWs and other point sources in these TMDLs. In this permit, Los Angeles Water Board staff translates WLAs into effluent limitations by applying the SIP procedures.

b. San Gabriel River, Estuary and Tributaries Indicator Bacteria TMDL - On June 10, 2015, the Los Angeles Water Board adopted Resolution Number R15-005, amending the Basin Plan to incorporate the San Gabriel River, Estuary, and Tributaries Indicator Bacteria TMDL. This TMDL was approved by the State Water Board, Office of Administrative Law, and USEPA on November 17, 2015, April 14, 2016, and June 14, 2016, respectively. This TMDL assigns WLAs to non-MS4 dischargers, currently subject to permits with effluent limits for bacteria equal to the existing effluent limits for bacteria. Therefore, the existing Title 22-based bacteria limitations are retained and function as the WLA-based bacteria limitation. Since the SJC WRP already has final effluent limitation for bacteria, a separate WLA-based bacteria limitation is not established.

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

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

4.1. Discharge Prohibitions.

Effluent and receiving water limitations in this Board Order are based on the CWA, Basin Plan, State Water Board's plans and policies, USEPA guidance and regulations, and best practicable waste treatment technology. This order authorizes the discharge of tertiary-

treated wastewater from Discharge Points 001, 001A, 001B, 002, 003, 004, and 005. It does not authorize any other type of discharges.

4.2. Technology-based Effluent Limitations

4.2.1. Scope and Authority. Technology-based effluent limits require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level, referred to as "secondary treatment," which all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR part 133. These technology- based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of $BOD_5$20°C, and TSS.

4.2.2. Applicable TBELs

This Facility is subject to the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of $BOD_5$20°C and TSS. However, limitations in previous Order Number R4-2015-0070 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 100 mgd, (40 C.F.R. §122.45(b)(1), (f).), at Discharge Points 001, 001A and 001B, 62.5 mgd at Discharge Point 002, and 37.5 mgd at Discharge Points 003, 004 and 005. The principal design parameters for wastewater treatment plants are the daily BOD and TSS loading rates and the corresponding removal rate of the system. In applying 40 CFR Part 133 for weekly and monthly average BOD and TSS limitations, the application of tertiary treatment processes results in the ability to achieve lower levels of BOD and TSS than the secondary standards. This Facility is also subject to TBELs contained in similar NPDES permits, for similar facilities, based on the treatment level available by tertiary treated wastewater treatment systems. In addition to the average weekly and average monthly effluent limitations, daily maximum effluent limitations for BOD and TSS are included in the Order to ensure that the treatment works are not organically overloaded and operate in accordance with design capabilities. 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	Average Monthly	Average Weekly	Maximum Daily	Notes
$BOD_5$20°C	mg/L	20	30	45	---
$BOD_5$20°C	lbs/day	16,700	25,000	37,530	a
$BOD_5$20°C	lbs/day	10,400	15,600	23,500	b

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
$BOD_5$20°C	lbs/day	6,260	9,380	14,100	c
TSS	mg/L	15	40	45	---
TSS	lbs/day	12,500	33,400	37,500	a
TSS	lbs/day	7,820	20,900	23,500	b
TSS	lbs/day	4,700	12,500	14,100	c
Removal Efficiency for BOD and TSS	%	≥85	---	---	---

Footnotes for Table F-7

a. The mass emission rate for EFF-001, EFF-001A, and EFF-001B is based on the plant design flow rate of 100.0 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.

b. The mass emission rate for EFF-002 is based on the plant design flow rate of 62.5 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.

c. The mass emission rate for EFF-003, EFF-004, or EFF-005 is based on the plant design flow rate of 37.5 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.

End of Footnotes for Table F-7

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

$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, in fish kills.

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

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

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

San Jose Creek WRP provides tertiary treatment so the BOD and TSS limits in the permit are more stringent than secondary treatment requirements and are based on

Best Professional Judgment (BPJ). The Facility achieves solids removals that are better than secondary-treated wastewater by 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 R4-2015-0070) and the San Jose Creek WRP has been able to meet both limits (monthly average and the daily maximum), for both BOD and TSS.

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

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority

CWA Section 301(b) and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements more stringent than secondary treatment requirements necessary to meet applicable water quality standards. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements or other provisions, is discussed beginning in section 4.3.2. of this Fact Sheet.

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

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

4.3.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

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

a. pH

The hydrogen ion activity of water (pH) is measured on a logarithmic scale, ranging from 0 to 14. While the pH of "pure" water at 25°C is 7.0, the pH of natural waters is usually slightly basic due to the solubility of carbon dioxide from the atmosphere. Minor changes from natural conditions can harm aquatic life. 40 CFR § 133.102(c) requires that effluent values for pH shall be maintained within the limits of 6.0 to 9.0 with certain exceptions. The effluent limitation for pH in this permit is taken from the Basin Plan (page 3-40) 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." The pH effluent limitations are based on the Basin Plan WQOs, which is more stringent than the CFR. These effluent limitations have been carried over from the previous Order.

b. Settleable Solids

Excessive deposition of sediments can destroy spawning habitat, blanket benthic (bottom dwelling) organisms, and abrade the gills of larval fish. The limits for settleable solids are based on the Basin Plan (page 3-44) narrative WQO: "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 daily maximum limits were both included in the previous permit (Order R4-2015-0070) and the San Jose Creek WRP has been able to meet both limits. These effluent limitations have been carried over from the previous permit.

c. Oil and Grease

Oil and grease are not readily soluble in water and form a film on the water surface. Oily films can coat birds and aquatic organisms, impacting respiration and thermal regulation, potentially causing death. Oil and grease can also cause nuisance conditions (odors and taste), are aesthetically unpleasant, and can restrict a wide variety of beneficial uses. The limits for oil and grease are based on the Basin Plan (page 3-34) narrative WQO, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."

The numeric limits are empirically based on concentrations at which an oily sheen becomes visible in water. It is impracticable to use a 7-day average limitation,

because spikes that occur under a 7-day average scheme could cause a visible oil sheen. A 7-day average scheme would not be sufficiently protective of beneficial uses. Both limits were included in the previous permit (Order Number R4-2015-0070) and the Facility has been able to meet both limits. These effluent limitations have been carried over from the previous permit.

d. Residual Chlorine

Disinfection of wastewaters with chlorine produces a residual. Chlorine and its reaction products are toxic to aquatic life. The limit for residual chlorine is based on the Basin Plan (page 3-30) narrative WQO, "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 exposures of chlorine may cause fish kills. The San Jose Creek WRP has been able to meet this limit. These effluent limitations have been carried over from the previous permit.

e. TDS, Chloride, Sulfate, and Boron

The limitations for total dissolved solids, chloride, sulfate, and boron are based on Basin Plan Table 3-10 (page 3-37) for surface water in the San Gabriel River watershed. For Discharge Points 001A, 001B, 002, and 003 which lie between Valley Boulevard and Firestone Boulevard, the limitation in the San Gabriel River for TDS is 750 mg/L; for chloride is 180 mg/L; for sulfate is 300 mg/L and for boron is 1.0 mg/L. For Discharge Points 004 and 005 which lie between Morris Dam and Ramona Boulevard, the limitation in the San Gabriel River for TDS is 450 mg/L; for chloride is 100 mg/L; for sulfate is 100 mg/L; and for boron is 0.5 mg/L.

Consistent with the approach that was used in the USEPA-promulgated SGR Metals TMDL, Discharge Point 001 is considered as though it discharges to Reach 1, between Firestone Blvd and San Gabriel River Estuary. Therefore, as shown in Table 3-10 (footnote f), there are no waterbody specific objectives established for TDS, chloride, sulfate, and boron for the freshwater aquatic life beneficial uses of the receiving waters at Discharge Point 001. However, this area is often impaired by high levels of minerals. The mineral or nutrient quality necessary to protect freshwater aquatic life beneficial uses is provided in Table 3-10 (refer to footnote f) to serve as a guideline for establishing effluent limit value for chloride in footnote f is 230 mg/L as a 4-day average. The receiving water has designated beneficial uses RARE and WARM for aquatic life (freshwater). In order to protect the most sensitive beneficial use of the receiving water, a chloride effluent limitation of 230 mg/L has been included in this Order.

f. Methylene Blue Activated Substances (MBAS)

The existing permit effluent limitation of 0.5 mg/L for MBAS was developed based on the Basin Plan incorporation of Title 22, Drinking Water Standards. The water quality objective protects waters with a MUN beneficial use. San Jose Creek and San Gabriel River are unlined in several reaches downstream of the points of wastewater discharge and are designated with the beneficial use of groundwater recharge

(GWR) in the Basin Plan. The underlying groundwater basins have a MUN beneficial use. The effluent limitation for MBAS is included to protect the existing GWR beneficial use that is designated for the surface receiving waters as well as the existing MUN beneficial use of the underlying groundwater basin.

The MBAS limit also protects the recreational, aquatic life, and wildlife beneficial uses of the surface receiving water downstream of the discharge against foam and implements the Basin Plan WQO for floating material. Volume 44, Number 179 of the Federal Register (on page 53467) explains that foaming is a characteristic of water which has been contaminated by the presence of detergents and similar substances. The 0.5 mg/L limit for foaming agents is based on the fact that at higher concentrations, the water may exhibit undesirable taste and foaming properties.

Water from the soft-bottomed San Jose Creek incidentally recharges the underlying Groundwater Basin. Section 1.3, Step 7 of the SIP lists the type of information that can be used with the permit writer's "best professional judgement" to determine RP. Page 7 of the SIP states, "Information that may be used to aid in determining if a water quality-based effluent limitation is required includes: the facility type, the discharge type, solids loading analysis, lack of dilution, history of compliance problems, potential toxic impact of discharge, fish tissue residue data, water quality beneficial uses of the receiving water, CWA 303(d) listing of the pollutant, the presence of endangered or threatened species or critical habitat, and other information." 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 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, the effluent limitation for MBAS in the previous Order is carried over into this Order.

Cobalt thiocyanate active substances (CTAS) are monitored in the same way as MBAS. The presence or absence of CTAS during sampling assists permit writers and the Discharger in diagnosing the source of floating materials, such as foam or scum, which are prohibited by the Basin Plan when they cause nuisance or adversely affect beneficial uses. CTAS has no established water quality objective, but may be governed, as a practical matter, by prohibitions against floating materials.

g. 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 such as algal growth. 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 effluent limits for biostimulatory substances are based on the Basin Plan (page 3-29) narrative WQO, “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 to arrive at a mass based-limit 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).

Total inorganic nitrogen (NO2–N + NO3–N) effluent limitation of 8 mg/L is based on Basin Plan Table 3-10 (page 3-37, for San Gabriel River between Valley Boulevard and Firestone Boulevard and is applicable to all discharge points except Discharge Point 001. The mass emission rate for EFF-001A and EFF-001B are based on the plant design flow rate of 100 mgd. The mass emission rate for EFF-002 and EFF-003 are based on the plant design flow rates of 62.5 and 37.5 mgd, respectively.

h. Nitrite as Nitrogen and Nitrate as Nitrogen

The effluent limits for nitrate as nitrogen of 10 mg/L and nitrite as nitrogen (NO_2-N) of 1.0 mg/L are based on the Basin Plan numeric water quality objectives and best professional judgment. The mechanism for reducing ammonia concentrations in the effluent involves the nitrification-denitrification treatment process, where the ammonia and organic nitrogen are oxidized to nitrite before final conversion to nitrate. Nitrite is converted to nitrate in the presence of oxygen. Therefore, there is reasonable potential for nitrite or nitrate to be present in the discharge if the oxidation process is not complete.

$2NH_4$+ (ammonia) + $3O_2 \rightarrow 4H^+ + 2NO_2^-$ (nitrite) + H_2O (water)

$2NO_2^-$ (nitrite) + $O_2 \rightarrow 2NO_3^-$ (nitrate)

i. Total Ammonia

i. Water Quality Objectives

Ammonia is a pollutant routinely found in the wastewater effluent of POTWs, in landfill-leachate, as well as in runoff 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 diffuses 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. There is groundwater recharge 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.

The Basin Plan includes one-hour, 30-day average, and four-day objectives for ammonia nitrogen in inland surface waters that are freshwaters. The freshwater one-hour average objective is dependent on pH and fish species (salmonids present or

absent), but not temperature. It is assumed that salmonids may be present in waters designated in the Basin Plan as “COLD” or “MIGR” and that salmonids are absent in waters not designated in the Basin Plan as “COLD” or “MIGR,” in the absence of additional information to the contrary. The freshwater 30-day average objective is dependent on pH, temperature, and the presence or absence of early life stages of fish (ELS). Early life stages of fish are presumptively present and must be protected at all times of the year unless the water body is listed under the ELS “Absent” condition in Table 3-5 of the Basin Plan or unless a site-specific study is conducted, which justifies applying the ELS absent condition or a seasonal ELS present condition. A watershed may have some reaches and tributaries with ELS present conditions and others with ELS absent conditions. Implementation actions to achieve applicable ammonia objectives must implement downstream objectives. The freshwater four-day average objective is 2.5 times the 30-day average objective.

The Basin Plan specifies implementation procedures to translate water quality objectives described previously into effluent limitations. For the one-hour objective, the freshwaters where the discharge points lie do not have COLD or MIGR beneficial uses. Therefore, salmonids are assumed to be absent in all receiving waters and the applicable condition under Table 3-1 of the Basin Plan is applied. The Basin Plan includes site-specific 30-day average objectives that include reaches of the San Gabriel River that receive discharges from the Facility as shown in Table 3-4. The translation of site-specific water quality objectives into effluent limitations is shown below for all discharge points. In accordance with the requirements of the existing permit, the Permittee submitted an annual ammonia SSO validation evaluation. According to the 2020 SSO Evaluation Report, in San Gabriel River Reaches 2 and 3, the annual mean hardness was increased by 10% and annual mean alkalinity was increased by 7% in comparison with the 2000 through 2007 mean. For San Jose Creek Reach 1, the annual mean hardness was increased by 14% and annual mean alkalinity was decreased by 10%. These results did not hit the trigger of annual mean hardness and alkalinity decrease lower than 25 % of the 2000 through 2007 mean, so the additional quarterly receiving water chronic testing using *Ceriodaphnia dubia* was not conducted. The 2020 SSO Evaluation report further reported that no winter spawning (during ELS absent period) fish species were observed in Reaches 1 and 3 of the San Gabriel River and Reach 1 of San Jose Creek. Reach 2 of the San Gabriel River is not perennial and portions of the area that have impoundments/ponds for groundwater recharge include permanent fish passage barriers and no fish have been observed. The evaluation concluded that the adopted ammonia Site Specific Objective (SSO) continues to be fully protective of the beneficial uses.

ii. Ammonia Effluent Limitations

Translation of Ammonia Nitrogen Objectives into Effluent Limitations by applying the Ammonia SSO:

Discharge Point 002: From San Jose Creek WRP East Facility and discharges to San Jose Creek Reach 1.

Step 1 – Identify applicable water quality objective.

Based on Table 3-4 of the Basin Plan, ELS is present seasonally for San Gabriel River Reaches 2 and 3 (downstream of discharge). The Permittee's effluent data is separated by time of year when ELS are present (from April 1 to September 30) and when ELS are absent (from October 1 to March 31), from 2015 to 2020:

- ELS Present (from April 1 to September 30):

pH = 7.8 at 50th percentile and Temperature = 26.4°C
pH = 8.3 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 8.3;
One-hour Average Objective = 4.71 mg/L

30-day Average Objective
The 30-day average Ammonia SSO ELS present will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd including all San Jose Creek WRP discharges):

$$\text{CCC SSO 30 Day Av ELS P} = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}}\right) * 0.89 * MIN(2.85, 2.37 * 10^{0.028*(25-T)})$$

Using 50th percentile pH 7.8 and temperature = 26.4°C;
30-day Average SSO ELS Present = 2.52 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 2.52 = 6.30 mg/L

- ELS Absent (from October 1 to March 31):

pH = 7.5 at 50th percentile and Temperature = 21.1°C
pH = 8.5 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 8.5;
One-hour Average Objective = 3.20 mg/L

30-day Average Objective
The 30-day average Ammonia SSO ELS absent will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd including all San Jose Creek WRP discharges):

$$\text{CCC SSO 30 Day Av ELS A} = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}}\right) * 0.89 * 2.37 * 10^{0.028*(25-Max(T,7))}$$

Using 50th percentile pH 7.5 and temperature = 21.1°C;
30-day Average SSO ELS Absent = 4.86 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.

4-day Average Objective = 2.5 x 4.86 = 12.16 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Present:

One-hour Average= 4.71 mg/L
Four-day Average= 6.30 mg/L
30-day Average $_{\text{all year long}}$ = 2.52 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Absent:

One-hour Average= 3.20 mg/L
Four-day Average= 12.16 mg/L
30-day Average $_{\text{all year long}}$= 4.86 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 Los Angeles 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 adjusts for variability. By using Table 3-6 or multiplier calculations in the Basin Plan and calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance:

ECA multiplier when CV = 0.1317 (ELS Present)
ECA multiplier$_{\text{1-hour 99}}$= 0.7434
ECA multiplier$_{\text{4-day 99}}$ = 0.8600
ECA multiplier$_{\text{30-day 99}}$= 0.9459

ECA multiplier when CV = 0.1821 (ELS Absent)
ECA multiplier$_{\text{1-hour 99}}$= 0.6677
ECA multiplier$_{\text{4-day 99}}$= 0.8128
ECA multiplier$_{\text{30-day 99}}$= 0.9261

Using the LTA equations:

<u>ELS Present:</u>
$LTA_{\text{1-hour99}}$ = $ECA_{\text{1-hour}}$ x ELA Present ECA multiplier$_{\text{1-hour99}}$
= 4.71 x 0.7434 = 3.505 mg/L
$LTA_{\text{4-day99 ELS Present}}$ = $ECA_{\text{4-day}}$ x ELA Present ECA multiplier$_{\text{4-day99}}$
= 6.30 x 0.8600 = 5.417 mg/L
$LTA_{\text{30-day99 ELS Present}}$= $ECA_{\text{30-day}}$ x ELA Present ECA multiplier$_{\text{30-day99}}$
= 2.52 x 0.9459 = 2.383 mg/L

<u>ELS Absent:</u>
$LTA_{\text{1-hour99}}$ = $ECA_{\text{1-hour}}$ x ELA Absent ECA multiplier$_{\text{1-hour99}}$
= 3.20 x 0.6677 = 2.139 mg/L
$LTA_{\text{4-day99 ELS Absent}}$ = $ECA_{\text{4-day}}$ x ELA Absent ECA multiplier$_{\text{4-day99}}$
= 12.16 x 0.8128 = 9.882 mg/L
$LTA_{\text{30-day99 ELS Absent}}$ = $ECA_{\text{30-day}}$ x ELA Absent ECA multiplier$_{\text{30-day99}}$
= 4.86 x 0.9261 = 4.504 mg/L

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

ELS Present LTA_{min} = **2.383** mg/L
ELS Absent LTA_{min} = **2.139** 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 or calculated using equations in the Basin Plan.

The minimum LTA when ELS are present is $LTA_{30\text{-}day99\ ELS\ Present}$ and when ELS are absent is $LTA_{1\text{-}hour99}$. Monthly sampling frequency (n) is at least once per month, therefore n = 30 for ELS Present and n = 1 for ELS Absent. ELS Present CV = 0.1317 and ELS Absent CV = 0.1821

ELS Present MDEL $multiplier_{99}$ = 1.3451
ELS Present AMEL $multiplier_{95}$ = 1.0400

ELS Absent MDEL $multiplier_{99}$ = 1.4976
ELS Absent AMEL $multiplier_{95}$ = 1.3243

ELS Present:
MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 2.383 x 1.3451 = 3.206
≈ 3.2 mg/L
AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 2.383 x 1.0400 = 2.479
≈ 2.5 mg/L

ELS Absent:
MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 2.139 x 1.4976 = 3.203
≈ 3.2 mg/L
AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 2.139 x 1.3243 = 2.832
≈ 2.8 mg/L

Table F-8. Translated Ammonia Effluent Limitations with SSO Applied for San Jose Creek (Discharge Point 002) from San Jose Creek East Facility

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Present April 1 – September 30)	3.2	2.5
Ammonia Nitrogen (ELS Absent October 1 – March 31)	3.2	2.8

Discharge Point 003: From San Jose Creek West Facility and discharges to San Gabriel River Reach 3.

Step 1 – Identify applicable water quality criteria.

Based on Table 3-4 of the Basin Plan, ELS is present seasonally for San Gabriel River Reaches 2 and 3. The Permittee's effluent data is separated by time of year when ELS are present (from April 1 to September 30) and when ELS are absent (from October 1 to March 31), from 2015 to 2020:

- ELS Present (from April 1 to September 30):

pH = 7.9 at 50th percentile and Temperature = 25.7°C
pH = 8.6 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 8.6;
One-hour Average Objective = 2.65 mg/L

30-day Average Objective
The 30-day average Ammonia SSO ELS present will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River, Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd.) (including all San Jose Creek WRP discharges):

$$CCC = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}} \right) * 0.89 * MIN(2.85, 2.37 * 10^{0.028*(25-T)})$$

Using 50th percentile pH 7.9 and temperature = 25.7°C;
30-day Average Objective $_{\text{SSO ELS Present}}$ = 2.317 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 2.317 = 5.794 mg/L

- ELS Absent (from October 1 to March 31):

pH = 7.7 at 50th percentile and Temperature = 19.4°C
pH = 8.3 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 8.3;
One-hour Average Objective = 4.71 mg/L

30-day Average Objective
The 30-day average Ammonia SSO ELS absent will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River, Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd.) (including all San Jose Creek WRP discharges):

$$CCC = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}} \right) * 0.89 * 2.37 * 10^{0.028*(25-Max(T,7))}$$

Using 50th percentile pH 7.7 and temperature = 19.4°C;
30-day Average Objective SSO ELS Absent = 4.449 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 4.449 = 11.12 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Present:

One-hour Average = 2.65 mg/L
Four-day Average = 5.794 mg/L

30-day Average ELS Present = 2.317 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Absent:

One-hour Average = 4.71 mg/L
Four-day Average = 11.12 mg/L
30-day Average ELS Absent = 4.449 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 Los Angeles 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 or multiplier calculations in the Basin Plan and calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 0.4848 (ELS Present)
$ECA\ multiplier_{1\text{-}hour\ 99}$ = 0.3817
$ECA\ multiplier_{4\text{-}day\ 99}$ = 0.5902
$ECA\ multiplier_{30\text{-}day\ 99}$ = 0.8174

ECA multiplier when CV = 0.4823 (ELS Absent)
$ECA\ multiplier_{1\text{-}hour\ 99}$ = 0.3832
$ECA\ multiplier_{4\text{-}day\ 99}$ = 0.5917
$ECA\ multiplier_{30\text{-}day\ 99}$ = 0.8183

Using the LTA equations:

ELS Present:
$LTA_{1\text{-}hour99} = ECA_{1\text{-}hour} \times ELA\ Present\ ECA\ multiplier_{1\text{-}hour99}$
= 2.65 x 0.3817 = 1.0119 mg/L
$LTA_{4\text{-}day99\ ELS\ Present} = ECA_{4\text{-}day99} \times ELA\ Present\ ECA\ multiplier_{4\text{-}day99}$
= 5.794 x 0.5902 = 3.420 mg/L
$LTA_{30\text{-}day99\ ELS\ Present} = ECA_{30\text{-}day99} \times ELA\ Present\ ECA\ multiplier_{30\text{-}day99}$
= 2.317 x 0.8174 = 1.894 mg/L

ELS Absent:
$LTA_{1\text{-}hour99} = ECA_{1\text{-}hour} \times ELA\ Absent\ ECA\ multiplier_{1\text{-}hour99}$
= 4.71 x 0.3832 = 1.807 mg/L
$LTA_{4\text{-}day99\ ELS\ Absent} = ECA_{4\text{-}day} \times ELA\ Absent\ ECA\ multiplier_{4\text{-}day99}$
= 11.12 x 0.5917 = 6.582 mg/L
$LTA_{30\text{-}day99\ ELS\ Absent} = ECA_{30\text{-}day} \times ELA\ Absent\ ECA\ multiplier_{30\text{-}day99}$
= 4.449 x 0.8183 = 3.641 mg/L

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

ELS Present LTA_{min} = **1.012** mg/L
ELS Absent LTA_{min} = **1.807** 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 or calculated using equations in the Basin Plan.

Monthly sampling frequency (n) is at least once per month, therefore n = 1 since the minimum LTA is the $LTA_{1\text{-}hr99}$ for ELS Present and Absent. ELS Present CV = 0.4848 and ELS Absent CV = 0.4823

ELS Present MDEL $multiplier_{99}$ = 2.6199
ELS Present AMEL $multiplier_{95}$ = 1.9160

ELS Absent MDEL $multiplier_{99}$ = 2.6093
ELS Absent AMEL $multiplier_{95}$ = 1.9111

ELS Present:
MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 1.0119 x 2.6199 = 2.651
≈ 2.7 mg/L
AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 1.0119 x 1.9160 = 1.939
≈ 1.9 mg/L

ELS Absent:
MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 1.807 x 2.6093 = 4.715
≈ 4.7 mg/L
AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 1.807 x 1.9111 = 3.453
≈ 3.5 mg/L

Table F-9. Translated Ammonia Effluent Limitations with SSO Applied for San Gabriel River (Discharge Point 003) from San Jose Creek West Facility

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Present April 1 – September 30)	2.7	1.9
Ammonia Nitrogen (ELS Absent October 1 – March 31)	4.7	3.5

Discharge Points 004 and 005: From San Jose Creek West Facility and discharges to San Gabriel River Reaches 4 and 5.

Step 1 – Identify applicable water quality criteria.
Based on Table 3-5 of the Basin Plan, ELS is absent year-round for this area.

- ELS Absent (from October 1 to March 31):

pH = 7.8 at 50th percentile and Temperature = 21.1°C
pH = 8.3 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 8.3;
One-hour Average Objective = 4.71 mg/L

30-day Average Objective

Table 3-3 in the Basin Plan specifies the 30-day average objective for the ELS Absent condition. However, the 30-day average ELS absent will be calculated using the formula stated in the Basin Plan Table 3-2 for San Gabriel River, Reaches 4 and 5 which is applicable for temperatures exceeding 15°C, as specified in Table 3-3.

$$\text{30 Day Av ELS A} = \left(\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right) * MIN(2.85, 1.45 * 10^{0.028*(25-T)})$$

Using 50th percentile pH 7.8 and temperature = 21.1°C;
30-day Average ELS Absent= 2.077 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 2.077 = 5.192 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Absent:
One-hour Average= 4.71 mg/L
Four-day Average= 5.192 mg/L
30-day Average $_{\text{all year long}}$ = 2.077 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 Los Angeles 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 or multiplier calculations in the Basin Plan and calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 0.4975 (Year round)
ECA multiplier$_{\text{1-hour 99}}$= 0.3741
ECA multiplier$_{\text{4-day 99}}$ = 0.5828
ECA multiplier$_{\text{30-day Average}}$= 0.8132

Using the LTA equations:

ELS Absent:
$LTA_{\text{1-hour99}}$= $ECA_{\text{1-hour}}$ x ELA Absent ECA multiplier$_{\text{1-hour99}}$
= 4.71 x 0.3741 = 1.764 mg/L
$LTA_{\text{4-day99 ELS Absent}}$ = $ECA_{\text{4-day}}$ x ELA Absent ECA multiplier$_{\text{4-day99}}$
= 5.192 x 0.5828 = 3.026 mg/L
$LTA_{\text{30-day99 ELS Absent}}$ = $ECA_{\text{30-day}}$ x ELA Absent ECA multiplier$_{\text{30-day99}}$
= 2.077 x 0.8132 = 1.689 mg/L

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

ELS Absent LTA_{min} = **1.689** 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 or calculated using equations in the Basin Plan.
Monthly sampling frequency (n) is at least once per month, and the minimum LTA is the $LTA_{30\text{-}day99}$, therefore n = 30, Year round CV = 0.4975

ELS Absent MDEL $multiplier_{99}$ = 2.673
ELS Absent AMEL $multiplier_{95}$ = 1.156

ELS Absent:
MDEL = LTA_{min} x MDEL $multiplier_{99}$ = 1.689 x 2.673 = 4.515
≈ 4.5 mg/L
AMEL = LTA_{min} x AMEL $multiplier_{95}$ = 1.689 x 1.156 = 1.952
≈ 2.0 mg/L

Table F-10. Translated Ammonia Effluent Limitations for Discharge Points 004 and 005 in San Gabriel Reach 4 and Reach 5

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Absent)	4.5	2.0

Discharge Points 001A and 001B: Outfalls discharging combined effluent from SJC East and West WRP and discharges to San Gabriel River Reach 2.

Step 1 – Identify applicable water quality criteria.
Based on Table 3-4 of the Basin Plan, ELS is present seasonally for San Gabriel River Reaches 2 and 3. The Permittee's effluent data is separated by time of year when ELS are present (from April 1 to September 30) and when ELS are absent (from October 1 to March 31), from 2015 to 2020:

- ELS Present (from April 1 to September 30):

Discharge 001A
pH = 7.5 at 50th percentile and Temperature = 27.7°C
pH = 7.7 at 90th percentile

Discharge 001B
pH = 7.3 at 50th percentile and Temperature = 28.0°C
pH = 7.6 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 7.7 and 7.6;

One-hour Average Objective (Discharge 001A) = 15.19 mg/L

One hour Average Objective (Discharge 001B) = 17.03 mg/L

30-day Average Objective
The 30-day average SSO ELS present will be calculated using the formula stated in Basin Plan Table 3-4 for San Gabriel River, Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd.) (including all San Jose Creek WRP discharges):

$$CCC = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}} \right) * 0.89 * MIN(2.85, 2.37 * 10^{0.028*(25-T)})$$

Using 50th percentile pH 7.5 and 7.3 and temperature = 27.7°C and 28.0°C;

30-day Average SSO ELS Present (Discharge 001A) = 3.179 mg/L
30-day Average SSO ELS Present (Discharge 001B) = 3.626 mg/L

4-day Average Objective

4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective (Discharge 001A) = 2.5 x 3.179 = 7.947 mg/L4-day Average Objective (Discharge 001B) = 2.5 x 4.1 = 9.065 mg/L

- ELS Absent (from October 1 to March 31):

Discharge 001A
pH = 7.5 at 50th percentile and Temperature = 24.3°C
pH = 7.68 at 90th percentile

Discharge 001B
pH = 7.3 at 50th percentile and Temperature = 22.5°C
pH = 7.55 at 90th percentile

One-hour Average Objective

From Table 3-1 of the Basin Plan, using 90th percentile pH 7.5 and 7.3;
One-hour Average Objective (Discharge 001A) = 14.94 mg/L
One-hour Average Objective (Discharge 001B) = 18.43 mg/L

30-day Average Objective

The 30-day average SSO ELS absent will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River, Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd.) (including all San Jose Creek WRP discharges):

$$CCC = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}} \right) * 0.89 * 2.37 * 10^{0.028*(25-Max(T,7))}$$

Using 50th percentile pH 7.5 and 7.3 and temperature = 24.3°C and 22.5°C;
30-day Average SSO ELA Absent (Discharge 001A) = 3.955 mg/L
30-day Average SSO ELA Absent (Discharge 001B) = 5.179 mg/L

4-day Average Objective

4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective (Discharge 001A) = 2.5 x 3.955 = 9.887 mg/L
4-day Average Objective (Discharge 001B) = 2.5 x 5.179 = 12.95 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Present:

Discharge 001A
One-hour Average= 15.19 mg/L

Four-day Average= 7.947 mg/L
30-day Average = 3.179 mg/L

Discharge 001B
One-hour Average= 17.03 mg/L
Four-day Average= 3.626 mg/L
30-day Average = 9.065 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Absent:

Discharge 001A
One-hour Average= 14.94 mg/L
Four-day Average= 9.887 mg/L
30-day Average = 3.955 mg/L

Discharge 001B
One-hour Average= 18.43 mg/L
Four-day Average= 12.95 mg/L
30-day Average = 5.179 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 Los Angeles 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 or multiplier calculations in the Basin Plan and calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

Discharge 001A
ECA multiplier when CV = 0.2694 (ELS Present)
ECA multiplier$_{\text{One-hour Average}}$= 0.5595
ECA multiplier$_{\text{Four-day Average}}$= 0.7386
ECA multiplier$_{\text{30-day Average}}$= 0.8930

ECA multiplier when CV = 0.2621 (ELS Absent)
ECA multiplier$_{\text{One-hour Average}}$= 0.5676
ECA multiplier$_{\text{Four-day Average}}$= 0.7445
ECA multiplier$_{\text{30-day Average}}$= 0.8957

Discharge 001B
ECA multiplier when CV = 0.2694 (ELS Present)
ECA multiplier$_{\text{One-hour Average}}$= 0.5595
ECA multiplier$_{\text{Four-day Average}}$= 0.7386
ECA multiplier$_{\text{30-day Average}}$= 0.8930

ECA multiplier when CV = 0.2621 (ELS Absent)
ECA multiplier$_{\text{One-hour Average}}$= 0.5676
ECA multiplier$_{\text{Four-day Average}}$= 0.7445
ECA multiplier$_{\text{30-day Average}}$= 0.8957

Using the LTA equations:

ELS Present:

Discharge 001A
$LTA_{1\text{-hour99}} = ECA_{1\text{-hour}}$ x ELA Present ECA $multiplier_{1\text{-hour99}}$
= 15.19 x 0.5595 = 8.498 mg/L
$LTA_{4\text{-day99 ELS Present}} = ECA_{4\text{-day}}$ x ELA Present ECA $multiplier_{4\text{-day99}}$
= 9.887 x 0.7386= 5.870 mg/L
$LTA_{30\text{-day99 ELS Present}} = ECA_{30\text{-day}}$ x ELA Present ECA $multiplier_{30\text{-day99}}$
= 3.179 x 0.8930 = 2.839 mg/L

Discharge 001B
$LTA_{1\text{-hour99}} = ECA_{1\text{-hour}}$ x ELA Present ECA $multiplier_{1\text{-hour99}}$
= 17.03 x 0.5595 = 9.530 mg/L
$LTA_{4\text{-day99 ELS Present}} = ECA_{4\text{-day}}$ x ELA Present ECA $multiplier_{4\text{-day99}}$
= 3.626 x 0.7386 = 6.696 mg/L
$LTA_{30\text{-day99 ELS Present}} = ECA_{30\text{-day}}$ x ELA Present ECA $multiplier_{30\text{-day99}}$
= 9.065 x 0.8930 = 3.238 mg/L

ELS Absent:

Discharge 001A
$LTA_{1\text{-hour99}} = ECA_{1\text{-hour}}$ x ELA Absent ECA $multiplier_{1\text{-hour99}}$
= 14.94 x 0.5676 = 8.478 mg/L
$LTA_{4\text{-day99 ELS Absent}} = ECA_{4\text{-day}}$ x ELA Absent ECA $multiplier_{4\text{-day99}}$
= 9.887 x 0.7445 = 7.361 mg/L
$LTA_{30\text{-day99 ELS Absent}} = ECA_{30\text{-day}}$ x ELA Absent ECA $multiplier_{30\text{-day99}}$
= 3.955 x 0.8957 = 3.543 mg/L

Discharge 001B
$LTA_{1\text{-hour99}} = ECA_{1\text{-hour}}$ x ELA Absent ECA $multiplier_{1\text{-hour99}}$
= 18.43 x 0.5676 = 10.46 mg/L
$LTA_{4\text{-day99 ELS Absent}} = ECA_{4\text{-day}}$ x ELA Absent ECA $multiplier_{4\text{-day99}}$
= 12.95 x 0.7445 = 9.639 mg/L
$LTA_{30\text{-day99 ELS Absent}} = ECA_{30\text{-day}}$ x ELA Absent ECA $multiplier_{30\text{-day99}}$
= 5.179 x 0.8957 = 4.639 mg/L

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

Discharge 001A
ELS Present LTA_{min} = **2.84** mg/L
ELS Absent LTA_{min} = **3.54** mg/L

Discharge 001B
ELS Present LTA_{min} = **3.24** mg/L
ELS Absent LTA_{min} = **4.64** 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 or calculated using equations in the Basin Plan.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the $LTA_{30\text{-}day99}$, therefore n = 30.

Discharge 001A
ELS Present CV = 0.2694 and ELS Absent CV = 0.2621
ELS Present MDEL multiplier = 1.787
ELS Present AMEL multiplier = 1.083
ELS Absent MDEL multiplier = 1.762
ELA Absent AMEL multiplier = 1.081

ELS Present:
$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 2.84 \times 1.787 = 5.074$
≈ 5.1 mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 2.84 \times 1.083 = 3.074$
≈ 3.1 mg/L

ELS Absent:
$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 3.54 \times 1.762 = 6.241$
≈ 6.2 mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 3.54 \times 1.081 = 3.828$
≈ 3.8 mg/L

Discharge 001B
ELS Present CV = 0.2694 and ELS Absent CV = 0.2621
ELS Present MDEL multiplier = 1.787
ELS Present AMEL multiplier = 1.083
ELS Absent MDEL multiplier = 1.762
ELA Absent AMEL multiplier = 1.081

ELS Present:
$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 3.24 \times 1.787 = 5.788$
≈ 5.8 mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 3.24 \times 1.083 = 3.507$
≈ 3.5 mg/L

ELS Absent:
$MDEL = LTA_{min} \times MDEL\ multiplier_{99} = 4.64 \times 1.762 = 8.173$
≈ 8.2 mg/L
$AMEL = LTA_{min} \times AMEL\ multiplier_{95} = 4.64 \times 1.081 = 5.013$
≈ 5.0 mg/L

Table F-11. Translated Ammonia Effluent Limitations with SSO Applied for Discharge Point 001A in San Gabriel Reach 2

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Present April 1 – September 30)	5.1	3.1
Ammonia Nitrogen (ELS Absent October 1 – March 31)	6.2	3.8

Table F-12. Translated Ammonia Effluent Limitations with SSO Applied for Discharge Point 001B in San Gabriel Reach 2

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Present April 1 – September 30)	5.8	3.5
Ammonia Nitrogen (ELS Absent October 1 – March 31)	8.2	5.0

Discharge Point 001: Outfalls discharging combined effluent from SJC East and West WRP and discharges to San Gabriel River Reach 2, with limits established for the purpose of this Order for Reach 1, when ELS are absent.

Step 1 – Identify applicable water quality criteria.

- ELS Absent (from October 1 to March 31):

pH = 7.4 at 50th percentile and Temperature = 27.8°C
pH = 7.5 at 90th percentile

One-hour Average Objective
From Table 3-1 of the Basin Plan, using 90th percentile pH 7.5;
One-hour Average Objective = 19.30 mg/L

30-day Average Objective

The 30-day average SSO ELS absent will be calculated using the formula stated in the Basin Plan Table 3-4 for San Gabriel River, Reaches 2 and 3 (Confluence with San Jose Creek to Firestone Blvd.) (including all San Jose Creek WRP discharges):

$$CCC = \left(\frac{0.0676}{1+10^{7.688-pH}} + \frac{2.912}{1+10^{pH-7.688}} \right) * 0.89 * 2.37 * 10^{0.028*(25-Max(T,7))}$$

Using 50th percentile pH 7.4 and temperature = 27.8°C;
30-day Average $_{\text{SSO ELS Absent}}$= 4.621 mg/L

4-day Average Objective
4-day Average Objective = 2.5 times the 30-Day Ave. Obj.
4-day Average Objective = 2.5 x 4.62 = 11.55 mg/L

Ammonia Water Quality Objectives (WQO) Summary ELS Absent:

One-hour Average = 19.30 mg/L
Four-day Average = 4.621 mg/L
30-day Average = 11.55 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 Los Angeles 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 or multiplier calculations in the Basin Plan and calculated CV (i.e., standard deviation/mean for ammonia), the following are the Effluent Concentration Allowance.

ECA multiplier when CV = 0.2639 (ELS Absent)
ECA multiplier$_{1\text{-hour Average}}$ = 0.5656
ECA multiplier$_{4\text{-day Average}}$ = 0.7431
ECA multiplier$_{30\text{-day Average}}$ = 0.8951

Using the LTA equations:

ELS Absent:
LTA$_{1\text{-hour99 ELS Absent}}$ = ECA$_{1\text{-hour}}$ x ELA Absent ECA multiplier$_{1\text{-hour99}}$ = 19.30 x 0.5656 = 10.916 mg/L
LTA$_{4\text{-day99 ELS Absent}}$= ECA$_{4\text{-day}}$ x ELA Absent ECA multiplier$_{4\text{-day99}}$ = 11.55 x 0.7431 = 8.585 mg/L
LTA$_{30\text{-day99 ELS Absent}}$ = ECA$_{30\text{-day}}$ x ELA Absent ECA multiplier$_{30\text{-day99}}$ = 4.62 x 0.8951 = 4.136 mg/L

Step 4 – Select the lowest (most limiting) of the LTAs derived in Step 3 (LTA$_{min}$)

ELS Absent LTA$_{min}$ = **4.136** 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 or calculated using equations in the Basin Plan.

Monthly sampling frequency (n) is 30 times per month or less, and the minimum LTA is the LTA$_{30\text{-day99}}$, therefore n = 30, ELS Absent CV = 0.2639

ELS Absent MDEL multiplier$_{99}$ = 1.768
ELS Absent AMEL multiplier$_{95}$ = 1.081

ELS Absent:
MDEL = LTA$_{min}$ x MDEL multiplier$_{99}$ = 4.100 x 1.768 = 7.313 ≈ 7.3 mg/L
AMEL = LTA$_{min}$ x AMEL multiplier$_{95}$ = 4.100 x 1.081 = 4.472 ≈ 4.5 mg/L

Table F-13. Translated Ammonia Effluent Limitations with SSO Applied for Discharge Point 001 in San Gabriel Reach 2 with Reach 1 Requirements Applied

Constituent	MDEL (mg/L)	AMEL (mg/L)
Ammonia Nitrogen (ELS Absent)	7.3	4.5

iii. Receiving Water Ammonia Limitation

On March 2, 2011, the Los Angeles Water Board approved the ammonia receiving water monitoring location based on the study conducted by the Permittee. The study concluded that the ammonia compliance monitoring shall be conducted 100 feet

below the outfall. To ensure that downstream receiving waters are protected at all times, the Discharger shall monitor the ammonia concentrations at RSW-002, RSW-004, RSW-005, RSW-006, RSW-007, RSW-009 and RSW-011 as described in the MRP, 100 feet from the discharge outfall. The purpose of the monitoring location is to ensure that ammonia water quality objectives are met in the receiving water, even immediately downstream of the discharge when there has been little time for uptake or volatilization of ammonia in the receiving water. Concurrent sampling of ammonia, pH, and temperature will be required at this monitoring location. The Discharger shall compare the ammonia results to Basin Plan ammonia water quality objectives, based on the real-time pH and temperature data collected at the time of ammonia sampling.

Table F-14. Summary of all Ammonia Nitrogen Effluent Limitations

Discharge Points	Conditions	MDEL (mg/L)	AMEL (mg/L)
002 into San Jose Creek	ELS Present April 1 – September 30	3.2	2.5
002 into San Jose Creek	ELS Absent Oct 1 – March 31	3.2	2.8
003 into San Gabriel River	ELS Present April 1 – September 30	2.7	1.9
003 into San Gabriel River	ELS Absent Oct 1 – March 31	4.7	3.5
004 and 005 into the San Gabriel River	ELS Absent Year Round	4.5	2.0
N001A into San Gabriel Reach 2	ELS Present April 1 – September 30	5.1	3.1
001A into San Gabriel Reach 2	ELS Absent Oct 1 – March 31	6.2	3.8
001B into San Gabriel Reach 2	ELS Present April 1 – September 30	5.8	3.5
001B into San Gabriel Reach 2	ELS Absent Oct 1 – March 31	8.2	5.0
001 into San Gabriel Reach 2 (With limits based on Reach 1 hydrological conditions)	ELS Absent Year Round	7.3	4.5

j. Bacteria Indicators

Total 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 if the disinfection process is not operating adequately. As such, the permit contains the following effluent limitations:

i. The 7-day median number of total coliform bacteria at some point in the treatment process must not exceed a Most Probable Number (MPN) or Colony Forming Units (CFU) of 2.2 per 100 milliliters,

ii. 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

iii. No sample shall exceed an MPN for CFU of 240 total coliform bacteria per 100 milliliters.

These disinfection-based effluent limitations for total coliform are for human health protection and are consistent with requirements established by the State Water Resource Control Board, Division of Drinking Water. These limits for total coliform must be met at the point of the treatment train immediately following disinfection, as a measure of the effectiveness of the disinfection process.

k. Temperature

The Basin Plan contains the following water quality objective for temperature:

The natural receiving water temperature of all regional waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. Alterations that are allowed must meet the requirements below.

For waters designated WARM, water temperature shall not be altered by more than 5°F above the natural temperature. At no time shall these WARM-designated waters be raised above 80°F as a result of waste discharges.

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

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

ii. Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.

iii. 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 prior Order (Order Number R4-2015-0070) contained 86°F as a temperature effluent limitation. The Order stated that "[t]he temperature of wastes discharged shall not exceed 86°F except as a result of external ambient temperature." This Order revises the temperature effluent limitation to 80ºF to be consistent with the temperature water quality objectives in the Basin Plan, which is a new interpretation compared to the previous order.

The facility's temperature data during the previous permit term shows that effluent and receiving water temperatures exceed the newly interpreted 80°F temperature limitation, especially during summer months. Temperature data also exceeds the 86°F limitation in Order R4-2015-0070 primarily during the summer months and high ambient air temperatures. Since the facility can't consistently comply with the 80°F newly interpreted temperature effluent limitation, the Discharger submitted a request for a compliance schedule to comply with the newly interpreted effluent and receiving water limitations for temperature. This Order provides a compliance schedule with tasks.

l. 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 is based on the Basin Plan (page 3-46) and section 60301.320 of Title 22, chapter 3, "Filtered Wastewater" of the CCR., which limit turbidity as follows: "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"

m. 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. Section 301(f) of the CWA contains the following statement with respect to effluent limitations for radioactive substances, "Notwithstanding any other provisions of this Act, it shall be unlawful to discharge any radiological, chemical, or biological warfare agent, any high-level radioactive waste, or any medical waste, into the navigable waters." Chapter 5.5 of the Water Code contains a similar prohibition under section 13375, which reads as follows: "The discharge of any radiological, chemical, or biological warfare agent into the waters of the state is hereby prohibited." However, rather than an absolute prohibition on radioactive substances, Los Angeles Water

Board staff have set the following effluent limit for radioactivity: “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.” The limit is based on the Basin Plan incorporation of Title 22, CCR, *Drinking Water Standards,* by reference, to protect the GWR beneficial use. Therefore, this Order retains the limitation for radioactivity.

4.3.3. CTR and SIP

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

4.3.4. Determining the Need for WQBELs

The Los Angeles Water Board developed a WQBEL for copper, lead and selenium based upon *Total Maximum Daily Loads for Metals and Selenium in the San Gabriel River and Impaired Tributaries* (San Gabriel River Metals TMDL). The TMDLs explicitly assign WLAs to WRPs that discharge into specific reaches of the San Gabriel River. The effluent limitations for these pollutants were established because there is Tier 3 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 Los Angeles Water Board developed water quality-based effluent limitations for these pollutants pursuant to 40 CFR section 122.44(d)(1)(vii), which does not require or contemplate a reasonable potential analysis (RPA) at the permitting stage. Similarly, the SIP at Section 1.3 recognizes that a separate RPA at the permitting stage is not necessary if a TMDL has been developed.

In accordance with Section 1.3 of the SIP, the Los Angeles Water Board conducted an RPA for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Los Angeles Water Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that demonstrate reasonable potential, numeric WQBELs are required. The RPA considers water quality criteria from the CTR and NTR, and when applicable, water quality objectives specified in the Basin Plan. To conduct the RPA, the Los Angeles Water Board staff identified the maximum effluent concentration (MEC) and maximum background concentration in the receiving water for each constituent, based on data provided by the Permittee. The monitoring data cover the period from June 2015 to December 2020.

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

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

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

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

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Los Angeles Water Board to conduct the RPA. Upon review of the data, and if the Los Angeles Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed for the priority pollutants regulated in the CTR for which data are available. 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 Technical Support Document (TSD) also specifies procedures to conduct reasonable potential analyses which are used for pollutants that are not priority pollutants. The TSD RPA may also be used for pollutants that have non-CTR based water quality objectives. Based on upstream receiving water conditions or TMDL WLAs and effluent concentrations, the RPA indicated that limits are needed for Discharge Points 001/001A/001B, 002, 003, 004 and 005 for lead, selenium, copper, arsenic, benzo(a)pyrene, dieldrin, cyanide, heptachlor, and 2,3,7,8-TCDD.

The RPA for EFF-002 (Table F-16) and EFF-003 (Table F-17) apply to EFF-001, except for those based on the TMDL. In addition, the following Table summarizes additional requirements from RPA for San Jose West and East discharge at EFF-001. Note that among all the outfalls, EFF-001 is the only discharge point which does not have a lead effluent limit based on a WLA under the San Gabriel Metals TMDL since a lead WLA is not applied for San Gabriel River Reach 1. However, the constituent still has reasonable potential because of the measured lead concentration in the receiving water as shown in the table below.

Table F-15. Summary of Reasonable Potential Analysis for CTR Based Priority Pollutants at EFF-001

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-004(B) µg/L	RPA Result - Need Limitation?	Reason
6	Copper (dry weather)	18	5.48	21.6	YES	TMDL

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-004(B) µg/L	RPA Result - Need Limitation?	Reason
7	Lead	8.6	0.32	10.1	YES	B>C and detected in effluent
14	Cyanide	5.2	1.53	5.35	YES	B>C and detected in effluent
16	2,3,7,8-TCDD	0.000000014	0.0000019	0.0000026	YES	MEC>C
61	Benzo(a)pyrene	0.049	0.93	< 0.013	YES	MEC>C
111	Dieldrin	0.00014	0.005	< 0.001	YES	MEC>C
117	Heptachlor	0.00021	0.004	< 0.005	YES	MEC>C

The RPA for EFF-002 (Table F-16) and EFF-003 (Table F-17) apply to EFF-001A and EFF-001B, except for those based on the TMDL. In addition, the following Tables F-19 and F-20 summarizes additional requirements from RPA for San Jose West and East discharge at EFF-001A and EFF-001B.

Table F-16. Summary of Reasonable Potential Analysis for CTR Based Priority Pollutants at EFF-001A

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-004(B) µg/L	RPA Result - Need Limitation?	Reason
6	Copper	17	5.92	21.6	YES	B>C and detected in effluent
7	Lead (wet weather)	166	0.42	10.1	YES	TMDL

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-004(B) µg/L	RPA Result - Need Limitation?	Reason
14	Cyanide	5.2	1.71	5.35	YES	B>C and detected in effluent
16	2,3,7,8-TCDD	1.4E-08	1.9E-06	2.6E-06	YES	MEC>C
61	Benzo(a)pyrene	0.049	0.93	< 0.013	YES	MEC>C
111	Dieldrin	0.00014	0.005	< 0.001	YES	MEC>C
117	Heptachlor	0.00021	0.004	< 0.005	YES	MEC>C

Table F-17. Summary of Reasonable Potential Analysis for CTR Based Priority Pollutants at EFF-001B

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-004(B) µg/L	RPA Result - Need Limitation?	Reason
6	Copper	17	5.92	21.6	YES	B>C and detected in effluent
7	Lead (wet weather)	166	0.42	10.1	YES	TMDL
14	Cyanide	5.2	1.71	5.35	YES	B>C and detected in effluent
16	2,3,7,8-TCDD	1.4E-08	1.9E-06	2.6E-06	YES	MEC>C
61	Benzo(a)pyrene	0.049	0.93	< 0.013	YES	MEC>C
111	Dieldrin	0.00014	0.005	< 0.001	YES	MEC>C
117	Heptachlor	0.00021	0.004	< 0.005	YES	MEC>C

The following Table summarizes results from RPA for San Jose Creek East discharge at EFF-002.

Table F-18. Summary of Reasonable Potential Analysis for CTR-Based Priority Pollutants at EFF-002

CTR Number	Constituent	Applicable Water Quality Criteria (C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-001(B) µg/L	RPA Result - Need Limitation?	Reason
7	Lead	450	0.42	1.41	YES	TMDL WLA
10	Selenium	5	1.32	5.55	YES	TMDL WLA
61	Benzo(a)Pyrene	0.049	1.6	< 0.077	YES	MEC>C
111	Dieldrin	0.00014	0.008	< 0.0009	YES	MEC>C

The following table summarizes results from RPA for San Jose West discharge at EFF-003.

Table F-19. Summary of Reasonable Potential Analysis for CTR-Based Priority Pollutants at EFF-003

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At RSW-003(B) µg/L	RPA Result Need Limitation?	Reason
7	Lead	166	0.43	16.7	YES	TMDL WLA
16	2,3,7,8-TCDD (Dioxin)	1.4E-8	3.1E-6	< 4.0E-7	YES	MEC>C
111	Dieldrin	0.00014	0.003	< 0.001	YES	MEC>C
117	Heptachlor	0.00021	0.008	< 0.001	YES	MEC>C

The RPA for EFF-003 (Table F-17) applies to EFF-004 and EFF-005, except for those based on the TMDL. In addition, the following table summarizes additional requirements from RPA for San Jose West discharge at EFF-004 and EFF-005.

Table F-20. Summary of Reasonable Potential Analysis for CTR Based Priority Pollutants at Proposed Discharge Points EFF-004 and EFF-005

CTR Number	Constituent	Applicable Water Quality Criteria(C) µg/L	Max Effluent Conc. (MEC) µg/L	Maximum Detected Receiving Water Conc. At SGUT505(B) µg/L	RPA Result - Need Limitation?	Reason
2	Arsenic	10	1.13	13.4	YES	B>C and detected in effluent
6	Copper	20	5.48	23.4	YES	B>C and detected in effluent
7	Lead (wet weather)	166	0.43	1.91	YES	TMDL
10	Selenium	5	0.34	6.1	YES	B>C and detected in effluent
16	2,3,7,8-TCDD (Dioxin)	1.4E-8	3.1E-6	No Data	YES	MEC>C
111	Dieldrin	0.00014	0.003	No Data	YES	MEC>C
117	Heptachlor	0.00021	0.008	No Data	Yes	MEC>C

4.3.5. WQBEL Calculations

a. Calculation Options. Once RPA has been conducted using either the TSD or the SIP methodologies, WQBELs are calculated. Alternative procedures for calculating WQBELs include:

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. Multiple Discharge Points

RPA was performed and separate effluent limits were established for Discharge points 001, 001A, 001B, 002, 003, 004 and 005. Each of these discharge points go to different waterbodies (San Jose Creek Reach 1 and San Gabriel River Reaches 2 through 5) where different TMDL-based waste load allocations apply. Discharge Point 001, 001A, and 001B are outfalls from a common pipeline that can convey combined effluent from the SJC East and West Plants or only one of the plants, if

desired. Effluent concentrations are calculated based on a flow-weighted average depending on the flow from each plant. Therefore, the water quality of discharge from these discharge points are the same. Discharge Point 002 only comes from the SJC East Plant and Discharge Point 003 (and in the future 004 and 005), only come from the SJC West Plant.

c. San Gabriel River Metals TMDL

Chapter 7-20 of the Basin Plan, Implementation Plan for the San Gabriel River Metals TMDL describes the implementation procedures and regulatory mechanisms that could be used to provide reasonable assurances that water quality standards will be met. The Implementation Plan requires that permit writers translate WLAs into effluent limits by applying the SIP procedures or other applicable engineering practices authorized under federal regulations.

According to Table 2-9, Summary of dry-weather and wet-weather impairments in the USEPA-promulgated *Total Maximum Daily Loads for Metals and Selenium for the San Gabriel River and Impaired Tributaries* (San Gabriel River Metals TMDL), San Gabriel River Reach 2 only has a wet-weather impairment for lead. There is reasonable potential for lead because a TMDL WLA has been developed (Tier 3) for Reach 2. This WLA applies in San Gabriel River Reach 2 and all upstream reaches and tributaries. Therefore, an effluent limitation based on the WLA has been prescribed for lead at all of the discharge points except for Discharge Point 001 (which also has a limitation for lead but based on Tier 2 RP, not the TMDL). The effluent limit calculations are consistent with the San Gabriel River Metals TMDL implementation procedure. The final effluent limitations for lead shall apply to wet-weather conditions only. Wet-weather is defined as the condition in the San Gabriel River when maximum daily flow at the United States Geological Survey gauging station 11087020 is equal to or greater than 260 cubic feet per second. The San Gabriel River Metals TMDL on page 17 indicated that the USGS gauge station located just above Whittier Narrow Dam (station 11085000) is the best indicator of wet-weather flow conditions. However, USGS station 11085000 is actually located below Santa Fe Dam in Baldwin Park. The USGS flow gauging station above Whittier Narrows Dam in Reach 3 is 11087020. Therefore, for flow monitoring purpose, and for determination of wet-weather flow conditions, USGS station 11087020 will be used.

San Jose Creek Reach 1 has a dry weather impairment for selenium. Therefore, limits based on the WLA were set for selenium in Discharge Point 002, which discharges to San Jose Creek Reach 1.

A dry weather impairment for copper was identified in the San Gabriel Estuary and a TMDL was developed. Discharges to upstream reaches can cause or contribute to exceedances of water quality standards and contribute to impairments downstream. Therefore, waste load allocations were developed for the upstream San Gabriel River Reach 1 to meet the copper TMDL in the Estuary. Effluent limits for Discharge Point 001 were developed based on the WLA for San Gabriel River Reach 1. Discharge Point 001 lies at the bottom portion of San Gabriel River Reach 2 which is concrete-lined and 925 feet upstream from Reach 1. The TMDL considers Discharge Point 001 to discharge to Reach 1 and drain to the Estuary, therefore requiring a

WLA to ensure the source does not contribute to copper exceedances in the Estuary. Those considerations are observed when establishing limitations for this permit.

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

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

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

Sample calculation for dieldrin (RP for Discharge Point 002):

Step 1: Identify applicable water quality criteria.

From California Toxics Rule (CTR), we can obtain the freshwater aquatic life and human health criterion.

Freshwater Aquatic Life Criteria:
Criterion Maximum Concentration (CMC) = 0.24 µg/L (CTR page 31715, column B1)
Criterion Continuous Concentration (CCC) = 0.056 µg/L (CTR page 31715, column B2)
Human Health Criteria for Organisms only = 0.00014 µg/L (CTR page 31715, column D2).

Step 2: Calculate effluent concentration allowance (ECA)

ECA = Aquatic life and human health criteria in CTR, since no dilution is allowed.

ECA Acute = 0.24 µg/L

ECA Chronic = 0.056 µg/L

ECA Human Health = 0.00014 µg/L

Step 3: Determine long-term average (LTA) discharge condition for each ECA based on aquatic life

Calculate CV:

CV = Standard Deviation/Mean = 0.6 (at least 80 percent of data is reported as non-detected)

Find the ECA Multipliers from SIP Table 1 (page 9), or by calculating them using equations on SIP page 8. When CV = 0.6:

ECA Multiplier acute99 = 0.321 and

ECA Multiplier chronic99 = 0.527

LTA acute = ECA acute x ECA Multiplier acute = 0.0771 µg/L

LTA chronic = ECA chronic x ECA Multiplier chronic = 0.0295 µg/L

Step 4: Select the lowest LTA derived in Step 3

LTA = LTA chronic = 0.0295 µg/L

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

AMEL multiplier 95 = 1.552

MDEL multiplier 99 = 3.114

AMEL aquatic life = LTA * AMEL multiplier 95 = 0.0459 µg/L

MDEL aquatic life = LTA * MDEL multiplier 99 = 0.0920 µg/L

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

Find factors. Given CV = 0.6 and n = 4.

MDEL/AMEL multiplier = 3.114/1.552 = 2.006

AMEL human health = ECA human health = 0.00014 µg/L

MDEL human health = ECA human health x MDEL/AMEL multiplier

= 0.00014 µg/L x 2.006 = 0.00028 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 = 0.00014 µg/L (based on human health protection)

Lowest MDEL = 0.00028 µg/L (based on human health protection)

The lowest AMEL and MDEL are applied as effluent limitations.

e. Impracticability Analysis

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

As stated by USEPA in its long-standing guidance for developing WQBELs 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. Similarly, a 7-day average alone would not protect one, two, three, or four days of discharging pollutants in excess of the acute and chronic criteria.

For these reasons, 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 certain priority pollutants because they are considered to be carcinogens, endocrine disruptors, and/or bioaccumulative.

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

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

Table F-21. Summary of WQBELs for Discharge Point EFF-001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	mg/L	4.5	---	7.3	---
Ammonia Nitrogen (ELS Absent)	lbs/day	3,753	---	6,088	a
Chloride	mg/L	230	---	---	b
Chloride	lbs/day	191,800	---	---	a
Lead	µg/L	7.9	---	11	---
Lead	lbs/day	6.6	---	9.2	a
Copper	µg/L	18	---	19	---
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.041	---	0.082	a
Cyanide	µg/L	4.4	---	8.3	---
Cyanide	lbs/day	3.7	---	6.9	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.00012	---	0.00023	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	0.00018	---	0.00035	a
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (dioxin)	lbs/day	1.2E-08	---	2.3E-08	a
Total Trihalomethanes	µg/L	80	---	---	c

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Total Trihalomethanes	lbs/day	66.7	---	---	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	d and e

Footnotes for Table F-21

a. The mass-based effluent limitations are based on the combined plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. The chloride average monthly limit is based on a 4-day average recommended objective in the Basin Plan (pg 3-38) to protect aquatic life beneficial uses in San Gabriel River Reach 1.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*

e. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL), and shall be reported as "Pass" or "Fail." The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL) and shall be reported as "Pass" or "Fail" and "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests would constitute a violation of the chronic toxicity MMEL.

End Footnotes for Table F-21

Table F-22. Summary of WQBELs for Discharge Point EFF-001A

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
Ammonia Nitrogen (ELS Present)	mg/L	3.1	---	5.1	---
Ammonia Nitrogen	lbs/day	2,585	---	4,253	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
(ELS Present)					
Ammonia Nitrogen (ELS Absent)	mg/L	3.8	---	6.2	
Ammonia Nitrogen (ELS Absent)	lbs/day	3,169	---	5,171	a
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	417	---	---	a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	150,100	---	---	a
Total Dissolved Solids	mg/L	750	---	---	---
Total Dissolved Solids	lbs/day	625,500	---	---	a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	250,200	---	---	a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	834	---	---	a
Nitrate + Nitrite as N	mg/L	8	---	---	---
Nitrate + Nitrite as N	lbs/day	6,670	---	---	---
Nitrite as N	mg/L	1.0	---	---	---
Nitrite as N	lbs/day	830	---	---	---
Lead	µg/L	---	---	166	b
Lead	lbs/day	---	---	---	---
Copper	mg/L	16	---	20	---
Copper	lbs/day	13.3	---	16.7	a
Cyanide	µg/L	4.4	---	8.1	---
Cyanide	lbs/day	3.7	---	6.8	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.00012	---	0.00023	a
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.041	---	0.082	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	0.00018	---	0.00035	a
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (dioxin)	lbs/day	1.2E-08	---	2.3E-08	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
Total Trihalomethanes	µg/L	80	---	---	c
Total Trihalomethanes	lbs/day	66.7	---	---	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	d and e

Footnotes for Table F-22

a. The mass-based effluent limitations are based on the combined plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *SGR Metals TMDL*. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam. The effluent load is given as a concentration, so calculation of a mass load is not consistent with the TMDL.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*

e. The average monthly is compared to the Median Monthly Effluent Limitation (MMEL), and shall be reported as "Pass" or "Fail." The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL) and shall be reported as "Pass" or "Fail" and "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests would constitute a violation of the chronic toxicity MMEL.

End Footnotes for Table F-22

Table F-23. Summary of WQBELs for EFF-001B

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Present)	mg/L	3.5	---	5.8	---
Ammonia Nitrogen (ELS Present)	lbs/day	2,919	---	4,837	a
Ammonia Nitrogen (ELS Absent)	mg/L	5.0	---	8.2	
Ammonia Nitrogen (ELS Absent)	lbs/day	4,170	---	6,839	a
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	417	---	---	a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	150,100	---	---	a
Total Dissolved Solids	mg/L	750	---	---	---
Total Dissolved Solids	lbs/day	625,500	---	---	a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	250,200	---	---	a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	834	---	---	a
Nitrate + Nitrite as N	mg/L	8	---	---	---
Nitrate + Nitrite as N	lbs/day	6,670	---	---	---
Nitrite as N	mg/L	1	---	---	---
Nitrite as N	lbs/day	834	---	---	---
Lead (wet weather)	µg/L	---	---	166	b
Copper	µg/L	15	---	19	---
Copper	lbs/day	12.5	---	15.8	a
Cyanide	µg/L	4.4	---	8.3	---
Cyanide	lbs/day	3.7	---	6.9	a
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.041		0.082	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.00012	---	0.00023	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	0.00018	---	0.00035	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (dioxin)	lbs/day	1.2E-08	---	2.3E-08	a
Total Trihalomethanes	µg/L	80	---	---	c
Total Trihalomethanes	lbs/day	66.7	---	---	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	d and e

Footnotes for Table F-23

a. The mass-based effluent limitations are based on the combined plant design flow rate of 100 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *SGR Metals TMDL*. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam. The effluent load is given as a concentration, so calculation of a mass load is not consistent with the TMDL.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*

e. The average monthly is a Median Monthly Effluent Limitation (MMEL), and the MMEL shall be reported as “Pass” or “Fail.” The Maximum Daily Effluent Limitation (MDEL) shall be reported as “Pass” or “Fail” and “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP may complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that

resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests constitutes a violation of the chronic toxicity MMEL.

End Footnotes for Table F-23

Table F-24. Summary of WQBELs for EFF-002

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Present)	mg/L	2.5	---	3.2	---
Ammonia Nitrogen (ELS Present)	lbs/day	1,303	---	1,668	a
Ammonia Nitrogen (ELS Absent)	mg/L	2.8	---	3.2	---
Ammonia Nitrogen (ELS Absent)	lbs/day	1,460	---	1,668	a
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	261	---	---	a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	93,800	---	---	a
Total Dissolved Solids	mg/L	750	---	---	---
Total Dissolved Solids	lbs/day	391,000	---	---	a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	156,000	---	---	a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	521	---	---	a
Nitrate + Nitrite as N	mg/L	8	---	---	---
Nitrate + Nitrite as N	lbs/day	4,170	---	---	---
Nitrite as N	mg/L	1	---	---	---
Nitrite as N	lbs/day	521	---	---	---
Selenium	µg/L	4.4	---	7.4	---
Lead	µg/L	---	---	166	b
Benzo(a)pyrene	µg/L	0.049	---	0.098	---
Benzo(a)pyrene	lbs/day	0.026	---	0.051	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.000073	---	0.00015	a
Total Trihalomethanes	µg/L	80	---	---	c

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Total Trihalomethanes	lbs/day	41.7	---	---	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoint	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	d and e

Footnotes for Table F-24

a. The mass-based effluent limitations are based on the San Jose Creek East plant design flow rate of 62.5 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *SGR Metals TMDL*. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam. The effluent load is given as a concentration, so calculation of a mass load is not consistent with the TMDL.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*.

e. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL) and shall be reported as “Pass” or “Fail.” The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL) and shall be reported as “Pass” or “Fail” and “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests would constitute a violation of the chronic toxicity MMEL.

End Footnotes for Table F-24

Table F-25. Summary of WQBELs for EFF-003

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
Ammonia Nitrogen (ELS Present)	mg/L	1.9	---	2.7	---
Ammonia Nitrogen (ELS Present)	lbs/day	563	---	844	Note a
Ammonia Nitrogen (ELS Absent)	mg/L	3.5	---	4.7	---
Ammonia Nitrogen (ELS Absent)	lbs/day	1,000	---	1,470	Note a
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	156	---	---	Note a
Chloride	mg/L	180	---	---	---
Chloride	lbs/day	56,300	---	---	Note a
Total Dissolved Solids	mg/L	750	---	---	---
Total Dissolved Solids	lbs/day	235,000	---	---	Note a
Sulfate	mg/L	300	---	---	---
Sulfate	lbs/day	93,830	---	---	Note a
Boron	mg/L	1.0	---	---	---
Boron	lbs/day	313	---	---	Note a
Nitrate + Nitrite as N	mg/L	8	---	---	---
Nitrate + Nitrite as N	lbs/day	2,502	---	---	---
Nitrite as N	mg/L	1	---	---	---
Nitrite as N	lbs/day	313	---	---	---
Lead (wet weather)	µg/L	---	---	166	Note b
Dieldrin	µg/L	0.00014	---	0.00028	
Dieldrin	lbs/day	0.000044	---	0.000088	
Heptachlor	µg/L	0.00021	---	0.00042	
Heptachlor	lbs/day	0.000066	---	0.00013	
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	
2,3,7,8-TCDD (dioxin)	lbs/day	4.4E-09	---	8.8E-09	
Total Trihalomethanes	µg/L	80	---	---	Note c

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Remarks
Total Trihalomethanes	lbs/day	25	---	---	Note a
Iron	µg/L	300	---	---	---
Iron	lbs/day	93.8	---	---	Note a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	Notes d and e

Footnotes for Table F-25

a. The mass-based effluent limitations are based on the San Jose Creek West plant design flow rate of 37.5 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *SGR Metals TMDL*. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam. The effluent load is given as a concentration, so calculation of a mass load is not consistent with the TMDL.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*.

e. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL), and shall be reported as “Pass” or “Fail.” The maximum daily result is compared to the Maximum Daily Effluent Limitation (MDEL), and shall be reported as “Pass” or “Fail” and “% Effect.” If the chronic aquatic toxicity routine monitoring test results in a “Fail” at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “Fail” at the IWC. If the first chronic MMEL compliance test results in a “Fail” at the IWC, then the second MMEL compliance test is not necessary because the “Fail” results from the first two tests would constitutes a violation of the chronic toxicity MMEL.

End Footnotes for Table F-25

Table F-26. Summary of WQBELs for EFF-004 and 005

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Ammonia Nitrogen (ELS Absent)	mg/L	2.0	---	4.5	---
Ammonia Nitrogen (ELS Absent)	lbs/day	626	---	1,410	a
MBAS	mg/L	0.5	---	---	---
MBAS	lbs/day	156	---	---	a
Chloride	mg/L	100	---	---	---
Chloride	lbs/day	31,300	---	---	a
Total Dissolved Solids	mg/L	450	---	---	---
Total Dissolved Solids	lbs/day	140,700	---	---	a
Sulfate	mg/L	100	---	---	---
Sulfate	lbs/day	31,300	---	---	a
Boron	mg/L	0.5	---	---	---
Boron	lbs/day	156	---	---	a
Nitrate + Nitrite as N	mg/L	8	---	---	---
Nitrate + Nitrite as N	lbs/day	2,502	---	---	a
Nitrite as N	mg/L	1	---	---	---
Nitrite as N	lbs/day	313	---	---	a
Lead	µg/L	---	---	166	b
Copper	µg/L	19	---	25	---
Copper	lbs/day	5.9	---	7.8	a
Arsenic	µg/L	10	---	---	---
Arsenic	lbs/day	3.1	---	---	a
Selenium	µg/L	4.5	---	7.0	---
Selenium	lbs/day	1.4	---	2.2	a
Dieldrin	µg/L	0.00014	---	0.00028	---
Dieldrin	lbs/day	0.000044	---	0.000088	a
Heptachlor	µg/L	0.00021	---	0.00042	---
Heptachlor	lbs/day	0.000066	---	0.00013	a
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	---
2,3,7,8-TCDD (dioxin)	lbs/day	4.4E-09	---	8.8E-09	a

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Notes
Total Trihalomethanes	µg/L	80	---	---	c
Total Trihalomethanes	lbs/day	25	---	---	a
Iron	µg/L	300	---	---	---
Iron	lbs/day	93.8	---	---	a
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect <50 (survival endpoint)	d and e

Footnotes for Table F-26

a. The mass-based effluent limitations are based on the San Jose Creek West plant design flow rate of 37.5 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 shall be the only applicable effluent limitations.

b. This final effluent limitation for lead is derived from the wet weather final waste load allocation, as set forth in the *SGR Metals TMDL*. Consistent with the Implementation Recommendations of the *SGR Metals TMDL*, the wet weather waste load allocation was translated into an effluent limitation by applying the SIP procedures. This effluent limitation applies only during wet weather, when the flow in the San Gabriel River is greater than or equal to 260 cubic feet per second (cfs), measured at USGS flow gauging station 11087020, located above the Whittier Narrows dam. The effluent load is given as a concentration, so calculation of a mass load is not consistent with the TMDL.

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

d. A numeric WQBEL for chronic toxicity is established because effluent data showed that there was reasonable potential for the effluent to cause or contribute to an exceedance of the chronic toxicity water quality objective. The Chronic Toxicity final effluent limitation is protective of both the numeric acute toxicity and the narrative toxicity Basin Plan water quality objectives. These final effluent limitations are established using 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), https://www.epa.gov/sites/production/files/documents/ToxTrainingTool10Jan2010.pdf*.

e. The average monthly result is compared to the Median Monthly Effluent Limitation (MMEL), and the MMEL shall be reported as "Pass" or "Fail." The Maximum Daily result is compared to the Maximum Daily Effluent Limitation (MDEL), and shall be reported as "Pass" or "Fail" and "% Effect." If the chronic aquatic toxicity routine monitoring test results in a "Fail" at the instream waste concentration (IWC), then the San Jose Creek WRP shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the "Fail" at the IWC. If the first chronic MMEL compliance test results in a "Fail" at the IWC, then the second MMEL compliance test is not necessary because the "Fail" results from the first two tests constitutes a violation of the chronic toxicity MMEL.

End Footnotes for Table F-26

4.3.6. Whole Effluent Toxicity (WET)

Whole effluent toxicity (WET) testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short period and measures mortality. A chronic toxicity test is conducted over a longer period and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it reaches higher concentrations. Therefore, chronic toxicity is considered a pollutant of concern for protection and evaluation of narrative Basin Plan objectives for toxicity.

A total of 221 chronic toxicity tests were conducted from June 2015 to December 2020. There are 25 exceedances of the MMEL and 5 MDEL exceedances during those inclusive dates. These exceedances show that there is reasonable potential for the pollutants to be present in the San Jose Creek WRP discharge at levels that would cause or contribute to a violation of water quality standard for chronic toxicity.

In the past, the State Water Board reviewed circumstances warranting a numeric chronic toxicity effluent limitation for POTWs when there was reasonable potential. (See SWRCB/OCC Files A-1496 & A-1496(a) [Los Coyotes/Long Beach Petitions] (Los Coyotes Order).) On September 16, 2003, at a public hearing, the State Water Board adopted Order Number 2003-0012, deferring the issue of numeric chronic toxicity effluent limitation for POTWs until adoption of a subsequent Phase of the SIP. In the meantime, the State Water Board replaced the numeric chronic toxicity limit with a narrative effluent limitation and a 1 TUc trigger, in the Long Beach and Los Coyotes WRP NPDES permits. The San Jose Creek WRP historic NPDES permit contained a similar narrative chronic toxicity effluent limitation, with a numeric trigger for accelerated monitoring, consistent with the State Water Board's Los Coyotes Order.

Since the State Water Board adopted the Los Coyotes Order in 2003, USEPA published two new guidance documents with respect to chronic toxicity; the Los Angeles Water Board adopted numerous NPDES permits for POTWs and industrial facilities incorporating TST-based effluent limitations for chronic toxicity and has adopted numerous permits containing numeric chronic toxicity effluent limitations (including for this Facility). 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 Los Angeles Water Board in 2014 as compared to the facts that were the basis for the Los Coyotes Order in 2003, the Los Angeles Water Board concluded that the Los Coyotes Order did not require inclusion of narrative rather than numeric effluent limitations for chronic toxicity. Further, the Los Angeles Water Board found that numeric effluent limitations for chronic toxicity were necessary, feasible, and appropriate. Thus, Order Number R4-2015-0070, which served as the NPDES permit for the San Jose Creek WRP, contained numeric chronic toxicity final effluent limitations expressed in terms of the Test of Significant Toxicity (TST).

Use of the TST approach is consistent with promulgated requirements of the test method, such as specified biological and laboratory procedures (see sections below for a description of U.S. EPA Method Update Rule and U.S. EPA's response). As has been affirmed by U.S. EPA, the TST statistical approach can be used with current

U.S.EPA methods that require testing multiple concentrations of effluent. This ATP would provide significant cost savings for those existing permittees upon approval by USEPA.

Because effluent data exhibited reasonable potential to cause or contribute to an exceedance of the water quality objective, and consistent with the previous Order, this Order contains numeric chronic toxicity effluent limitations. Compliance with the chronic toxicity requirement contained in this Order shall be determined in accordance with section 7.10. of this Order. This Order contains a reopener to allow the Los Angeles 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 the Test of Significant Toxicity (TST) hypothesis testing approach utilized in the previous Order. Chronic toxicity limitations are expressed as “Pass” for the median monthly effluent limitation (MMEL) and “Pass” and “<50% Effect” for each maximum daily effluent limitation (MDEL) individual result. The chronic toxicity effluent limitations are as stringent as necessary to protect the statewide Water Quality Objective for aquatic chronic toxicity.

The previous permit had based the WET final effluent limitations on the following:

i. 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 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 of 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).

ii. 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 EPA's WET test methods. Section 9.4.1.2 of the 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.

iii. 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. See, Supplementary Information in support of the Final Rule establishing WET test methods at 67 Fed. Reg. 69952, 69963, November 19, 2002. 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, LC50's, IC25's) were calculated appropriately (EPA 821-B-00-004).

iv. 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.

v. 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 Los Angeles Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t- test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

vi. Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or PMSDs must be submitted for review by the Los Angeles Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditation Program (40 CFR section 122.41(h)). As described in the bioassay laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Resources Control Board dated August 7, 2014, and from the USEPA dated December 24, 2013, the PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results.

4.4. Final Effluent Limitation Considerations

4.4.1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(*l*) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, except for the removal of effluent limitations for benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene which is based on an updated reasonable potential analysis, and relaxation of effluent limitations for selenium (dry weather; MDEL at EFF-002 and EFF-004 & 005), copper (dry weather; AMEL at EFF-001), and ammonia as nitrogen (AMEL and MDEL at EFF-001B and MDEL at EFF-004 & 005 during ELS absent period).

a. Benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene: Attainment Water for both San Gabriel River and San Jose Creek

The final effluent limitations for benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene that were included in the prior order are removed in this Order for discharges to San Jose Creek and San Gabriel

River because the discharges did not show reasonable potential to cause or contribute to an exceedance of the applicable water quality criteria for these pollutants, based on the monitoring data collected from June 2015 to 2020.

Section 402(o)(2) of the CWA 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, using the updated monitoring data, justifies removal of the effluent limitation for benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene as long as the cumulative effect of removing the limits results in a decrease in the amount of pollutants discharged into the receiving water. As explained in 4.3.4, the reasonable potential analysis is conducted prior to the renewal of the permit to determine if effluent limitations are needed to prevent an exceedance of a water quality standard in the receiving water. The monitoring process and the routine RPA, with the potential to remove and add effluent limitations, encourage the Discharger to maintain and even improve treatment performance and thus reduce the amount of pollutants discharged into the receiving water. The removal of effluent limitations for this pollutant is thus consistent with the anti-backsliding requirements of the CWA and federal regulations.

In addition, section 303(d)(4)(B) of the CWA allows relaxation of effluent limitations where the quality of the receiving water equals or exceeds the levels necessary to protect the designated uses of the water or otherwise required by applicable water quality standards, if the revision is subject to and consistent with the State's Antidegradation Policy. The San Gabriel River and San Jose Creek are not impaired for benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene because the concentrations of these pollutants in the receiving water do not exceed the applicable water quality standards in the water column. The monitoring data, collected from June 2015 to December 2020, showed that all of these pollutants in the effluent and receiving water samples were non-detect with detection limits ranged from 0.005 µg/l to 0.014 µg/l. As described below, relaxation or removal of effluent limitations for these pollutants 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.

b. Selenium and copper (dry weather): Non-Attainment Water

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.

The receiving waters at Discharge Point EFF-002, San Jose Creek Reach 1, is listed in the 303(d) list as non-attainment for selenium and the SGR Metals TMDL includes waste load allocations (WLAs) for these waterbodies. The TMDL implementation plan allows for translation of the WLAs into effluent limitations using SIP methodologies. Based on the effluent monitoring data, and using the SIP methodologies, a more stringent monthly limit and a less stringent daily limit are determined than were determined for the last permit term. This is consistent with the TMDL implementation plan. The cumulative effect of the monthly and daily limits will result in attainment of the water quality standard and is consistent with the assumptions and requirements of the TMDL.

The SGR Metals TMDL also has WLA for copper in San Gabriel River Reach 1 due to non-attainment for copper in the San Gabriel River Estuary which applies to EFF-001. Newly derived effluent limitations are more stringent for the daily maximum and less stringent for the monthly maximum compared to the previous Order.

The final effluent limitations for selenium and copper (dry weather) are consistent with the assumptions of the SGR Metals TMDL and are in conformance with Water Code Section 303(d)(4)(A) because they are intended to ensure water quality standards will be met in the receiving water.

c. Ammonia as Nitrogen: Attainment Water

The effluent limitations for ammonia as nitrogen during ELS absent is relaxed in this Order for EFF-001B (AMEL and MDEL) and for EFF-004 and 005 (MDEL) based on the monitoring data collected from June 2015 to December 2020. Effluent limitations are determined based on implementation requirements in the Basin Plan using the SIP methodologies. These limits are calculated based on statistical evaluations of the variation of effluent data and receiving water conditions. Calculations using the effluent and receiving water data are shown in section 4.3.2.i. The cumulative effect of the monthly and daily limits will result in attainment of the water quality standard.

Pursuant to CWA section 303(d)(4)(B), a water quality-based effluent limitation may be relaxed for discharges to receiving waters that are in attainment for the pollutants as long as the action complies with the state's antidegradation policy. San Gabriel River is not impaired for ammonia because the concentrations of ammonia in the receiving water do not exceed the applicable water quality standards. As described below, relaxation of the effluent limitation 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 relaxation of the limitations.

4.4.2. Antidegradation Policies

40 CFR § 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. On October 28, 1968, the State Water Board established California's antidegradation policy when it adopted Resolution Number 68-16, *Statement of Policy with Respect to Maintaining the Quality of the Waters of the State*. Resolution Number 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 Number 86-17 and an October 7,

1987 guidance memorandum, interpreted Resolution Number 68-16 to be fully consistent with the federal antidegradation policy contained in 40 CFR section 131.12. Similarly, CWA section 303(d)(4)(B) and 40 CFR section 131.12 require that all permitting actions be consistent with the federal antidegradation policy. Together, the state and federal antidegradation policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. The Los Angeles Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

San Gabriel River is included on the 303(d) list for many pollutants. The renewal of this NPDES permit is consistent with the anti-degradation policy because it is not expected to allow degradation of receiving water quality. No reduction in the existing level of wastewater treatment is anticipated. In addition, the renewal of the NPDES permit will not lower the surface water quality because the conditions in this Order are at least as stringent as the previous permit except for limits described in section 4.4.1 of the Fact Sheet. Relaxation of the effluent limitations as described in section 4.4.1 will continue to assure the attainment of water quality standards where the quality of the receiving water is impaired for that pollutant and will not degrade waters already in attainment.

The removal of the final effluent limitations for benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene is consistent with the antidegradation policy because the discharge did not exhibit reasonable potential to exceed the water quality objective. Effluent limitations for ammonia ELS Absent (MDEL and AMEL) at EFF-001B and MDEL at EFF-004 & 005 applicable to San Gabriel River is relaxed in this Order because monitoring data from June 2015 to 2020 demonstrated that such relaxation will not cause or contribute to an exceedance of the water quality standard for this pollutant. Selenium and copper (dry weather) limitations are relaxed based on the implementation procedures in the SGR Metals TMDL and are consistent with the assumptions of the SGR Metals TMDL, which will assure attainment of the water quality standard in the receiving water. Effluent and receiving water monitoring for the pollutants continue to be required under this Order to ensure effluent and receiving water concentrations do not exceed the objectives. In addition, this Order includes a reopener provision that permits the Los Angeles Water Board to reopen the permit if the effluent exhibits reasonable potential to exceed the objectives during the permit cycle. The Los Angeles 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 receiving water quality 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 the highest water quality consistent with maximum benefit to the people of the State will be maintained.

4.4.3. Stringency of Requirements for Individual Pollutants

This Order contains both TBELs and WQBELs for individual pollutants. The TBELs consist of restrictions on BOD, TSS, and percent removal of BOD and TSS. Restrictions on BOD, TSS, and percent removal of BOD and TSS are discussed in section 4.2. of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements 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 water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 CFR section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR implemented by the 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 water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and the applicable water quality standards for purposes of the CWA.

Table F-27. Summary of Final Effluent Limitations for EFF-001, EFF-001A, and EFF-001B

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
$BOD_5$20°C	mg/L	20	30	45	Tertiary Treatment
$BOD_5$20°C	lbs/day	16,700	25,000	37,500	Tertiary Treatment
TSS	mg/L	15	40	45	Tertiary Treatment
TSS	lbs/day	12,500	33,400	37,500	Tertiary Treatment
pH	Standard Units	---	---	6.5-8.5	Basin Plan
Temperature	°F	---	---	80	Basin Plan
Removal Efficiency for BOD and TSS	%	≥85	---	---	Tertiary Treatment
Oil and Grease	mg/L	10	---	15	Existing/BPJ
Oil and Grease	lbs/day	8,340	---	12,500	Existing/BPJ
Settleable Solids	ml/L	0.1	---	0.3	Existing/BPJ
Total Residual Chlorine	mg/L	---	---	0.1	Basin Plan
Total Coliform	CFU/100mL	23	2.2	240	Title 22
Radioactivity	---	---	---	---	---

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Combined Radium-226 and Radium 228	pCi/L	5	---	---	Title 22
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	Title 22
Uranium	pCi/L	20	---	---	Title 22
Gross Beta/photon emitters	millirem/ year	4	---	---	Title 22
Strontium-90	pCi/L	8	---	---	Title 22
Tritium	pCi/L	20,000	---	---	Title 22
Dieldrin	µg/L	0.00014	---	0.00028	SIP/CTR
Dieldrin	lbs/day	0.00012	---	0.00023	SIP/CTR
Cyanide	µg/L	4.4	---	8.3	SIP/CTR
Cyanide	lbs/day	3.7	---	6.9	SIP/CTR
Benzo(a)pyrene	µg/L	0.049	---	0.098	SIP/CTR
Benzo(a)pyrene	lbs/day	0.041	---	0.082	SIP/CTR
Heptachlor	µg/L	0.00021	---	0.00042	SIP/CTR
Heptachlor	lbs/day	0.00018	---	0.00035	SIP/CTR
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	SIP/CTR
2,3,7,8-TCDD(dioxin)	lbs/day	4.4E-09	---	8.8E-09	SIP/CTR
Total Trihalomethanes	µg/L	80	---	---	Basin Plan/Title 22
Total Trihalomethanes	lbs/day	66.7	---	---	Basin Plan/Title 22
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect < 50 (survival endpoint)	Existing/BPJ

Table F-28. Summary of Final Effluent Limitations for EFF-001 Only

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Chloride	mg/L	230	---	---	Basin Plan

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Chloride	lbs/day	191,820	---	---	Basin Plan
Ammonia Nitrogen (ELS Absent)	mg/L	4.5	---	7.3	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	3,753	---	6,088	Basin Plan
Copper (dry weather)	µg/L	18	---	19	TMDL
Lead	µg/L	7.9	---	11	SIP/CTR
Lead	lbs/day	6.6	---	8.3	SIP/CTR

Table F-29. Summary of Final Effluent Limitations for EFF-001A Only

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Chloride	mg/L	180	---	---	Basin Plan
Chloride	lbs/day	150,100	---	---	Basin Plan
MBAS	mg/L	0.5	---	---	Basin Plan
MBAS	lbs/day	417	---	---	Basin Plan
Sulfate	mg/L	300	---	---	Basin Plan
Sulfate	lbs/day	250,200	---	---	Basin Plan
TDS	mg/L	750	---	---	Basin Plan
TDS	lbs/day	625,500	---	---	Basin Plan
Boron	mg/L	1.0	---	---	Basin Plan
Boron	lbs/day	830	---	---	Basin Plan
Nitrate+Nitrite (as N)	mg/L	8	---	---	Basin Plan
Nitrate + Nitrite as N	lbs/day	6,670	---	---	Basin Plan
Nitrite as N	mg/L	1.0	---	---	Basin Plan
Nitrite as N	lbs/day	830	---	---	Basin Plan
Ammonia Nitrogen (ELS Present)	mg/L	3.1	---	5.1	Basin Plan
Ammonia Nitrogen (ELS Present)	lbs/day	2,585	---	4,253	Basin Plan
Ammonia Nitrogen (ELS Absent)	mg/L	3.8	---	6.2	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	3,169	---	5,171	Basin Plan
Lead (wet weather)	µg/L	---	---	166	TMDL
Copper	µg/L	16	---	20	SIP/CTR
Copper	lbs/day	13.3	---	16.7	SIP/CTR

Table F-30. Summary of Final Effluent Limitations for EFF-001B Only

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Chloride	mg/L	180	---	---	Basin Plan
Chloride	lbs/day	150,100	---	---	Basin Plan
MBAS	mg/L	0.5	---	---	Basin Plan
MBAS	lbs/day	417	---	---	Basin Plan
Sulfate	mg/L	300	---	---	Basin Plan
Sulfate	lbs/day	250,200	---	---	Basin Plan
TDS	mg/L	750	---	---	Basin Plan
TDS	lbs/day	625,500	---	---	Basin Plan
Boron	mg/L	1.0	---	---	Basin Plan
Boron	lbs/day	830	---	---	Basin Plan
Nitrate+Nitrite (as N)	mg/L	8	---	---	Basin Plan
Nitrate+Nitrite as N	lbs/day	6,670	---	---	Basin Plan
Nitrite as N	mg/L	1.0	---	---	Basin Plan
Nitrite as N	lbs/day	830	---	---	Basin Plan
Ammonia Nitrogen (ELS Present)	mg/L	3.5	---	5.8	Basin Plan
Ammonia Nitrogen (ELS Present)	lbs/day	2,919	---	4,837	Basin Plan
Ammonia Nitrogen (ELS Absent)	mg/L	5.0	---	8.2	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	4,170	---	6,839	Basin Plan
Lead (wet weather)	µg/L	---	---	166[17]	TMDL
Copper	µg/L	15	---	19	SIP/CTR
Copper	lbs/day	12,510	---	15,846	SIP/CTR

Table F-31. Summary of Final Effluent Limitations for EFF-002

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
$BOD_5 20^oC$	mg/L	20	30	45	Tertiary Treatment
$BOD_5 20^oC$	lbs/day	10,400	15,600	23,500	Tertiary Treatment
TSS	mg/L	15	40	45	Tertiary Treatment
TSS	lbs/day	7,820	20,900	23,500	Tertiary Treatment

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
pH	Standard Units	---	---	6.5 - 8.5	Basin Plan
Temperature	°F	---	---	80	Basin Plan
Removal Efficiency for BOD and TSS	%	≥85	---	---	Tertiary Treatment
Oil and Grease	mg/L	10	---	15	Existing/BPJ
Oil and Grease	lbs/day	5,210	---	7,820	Existing/BPJ
Settleable Solids	ml/L	0.1	---	0.3	Basin Plan
Total Residual Chlorine	mg/L	---	---	0.1	Basin Plan
Total Coliform	CFU/100mL	23	2.2	240	Title 22
Combined Radium-226 and Radium 228	pCi/L	5	---	---	Title 22
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	Title 22
Uranium	pCi/L	20	---	---	Title 22
Gross Beta/photon emitters	millirem/ year	4	---	---	Title 22
Strontium-90	pCi/L	8	---	---	Title 22
Tritium	pCi/L	20,000	---	---	Title 22
MBAS	mg/L	0.5	---	---	Basin Plan
MBAS	lbs/day	261	---	---	Basin Plan
Sulfate	mg/L	300	---	---	Basin Plan
Sulfate	lbs/day	156,000	---	---	Basin Plan
TDS	mg/L	750	---	---	Basin Plan
TDS	lbs/day	391,000	---	---	Basin Plan
Chloride	mg/L	180	---	---	Basin Plan
Chloride	lbs/day	93,800	---	---	Basin Plan
Boron	mg/L	1.0	---	---	Basin Plan
Boron	lbs/day	521	---	---	Basin Plan
Nitrate + Nitrite (as N)	mg/L	8	---	---	Basin Plan
Nitrate + Nitrite as N	lbs/day	4,170	---	---	Basin Plan
Nitrite (as N)	mg/L	1.0	---	---	Basin Plan

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Nitrite as N	lbs/day	521	---	---	Basin Plan
Ammonia Nitrogen (ELS Present)	mg/L	2.5	---	3.2	Basin Plan
Ammonia Nitrogen (ELS Present)	lbs/day	1,303	---	1,668	Basin Plan
Ammonia Nitrogen (ELS Absent)	mg/L	2.8	---	3.2	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	1,460	---	1,668	Basin Plan
Lead (wet weather)	µg/L	---	---	166	TMDL
Selenium (dry weather)	µg/L	4.4	---	7.4	TMDL
Dieldrin	µg/L	0.00014	---	0.00028	SIP/CTR
Dieldrin	lbs/day	0.000073	---	0.00015	SIP/CTR
Benzo(a)pyrene	µg/L	0.049	---	0.098	SIP/CTR
Benzo(a)pyrene	lbs/day	0.026	---	0.051	SIP/CTR
Total Trihalomethanes	µg/L	80	---	---	Basin Plan/ Title 22/TSD
Total Trihalomethanes	lbs/day	41.7	---	---	Basin Plan/Title 22/TSD
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect < 50 (survival endpoint)	Existing/BPJ

Table F-32. Summary of Final Effluent Limitations for EFF-003, EFF-004, and EFF-005

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
$BOD_5 20^oC$	mg/L	20	30	45	Tertiary Treatment
$BOD_5 20^oC$	lbs/day	6,250	9,380	14,100	Tertiary Treatment

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
TSS	mg/L	15	40	45	Tertiary Treatment
TSS	lbs/day	4,690	12,500	14,070	Tertiary Treatment
pH	Standard Units	---	---	6.5-8.5	Basin Plan
Temperature	°F	---	---	80	Basin Plan
Removal Efficiency for BOD and TSS	%	≥85	---	---	Tertiary Treatment
Oil and Grease	mg/L	10	---	15	Existing/BPJ
Oil and Grease	lbs/day	3,130	---	4,690	Existing/BPJ
Settleable Solids	ml/L	0.1	---	0.3	Basin Plan
Total Residual Chlorine	mg/L	---	---	0.1	Basin Plan
Total Coliform	CFU/100mL	23	2.2	240	Title 22
Radioactivity	---	---	---	---	---
Combined Radium-226 and Radium 228	pCi/L	5	---	---	Title 22
Gross Alpha particle activity (excluding radon and uranium)	pCi/L	15	---	---	Title 22
Uranium	pCi/L	20	---	---	Title 22
Gross Beta/photon emitters	millirem/ year	4	---	---	Title 22
Strontium-90	pCi/L	8	---	---	Title 22
Tritium	pCi/L	20,000	---	---	Title 22
MBAS	mg/L	0.5	---	---	Basin Plan
MBAS	lbs/day	156	---	---	Basin Plan
Nitrate + Nitrite (as N)	mg/L	8	---	---	Basin Plan
Nitrate + Nitrite as N	mg/L	8	---	---	Basin Plan
Nitrite (as N)	mg/L	1.0	---	---	Basin Plan
Nitrite as N	lbs/day	313	---	---	Basin Plan
Lead (wet weather)	µg/L	---	---	166	TMDL
Heptachlor	µg/L	0.00021	---	0.00042	SIP/CTR

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Heptachlor	lbs/day	0.000066	---	0.00013	SIP/CTR
Dieldrin	µg/L	0.00014	---	0.00028	SIP/CTR
Dieldrin	lbs/day	0.000044	---	0.000088	SIP/CTR
2,3,7,8-TCDD (dioxin)	pg/L	0.014	---	0.028	SIP/CTR
2,3,7,8-TCDD (dioxin)	lbs/day	4.4E-09	---	8.8E-09	SIP/CTR
Iron	µg/L	300	---	---	TSD & Basin Plan
Iron	lbs/day	93.8	---	---	TSD & Basin Plan
Total Trihalomethanes	µg/L	80	---	---	Basin Plan/Title 22
Total Trihalomethanes	lbs/day	25.0	---	---	Basin Plan/Title 22
Chronic Toxicity *Ceriodaphnia dubia* Survival and Reproduction endpoints	Pass or Fail (TST), % Effect	Pass	---	Pass or % Effect < 50 (survival endpoint)	Existing/BPJ

Table F-33. Summary of Final Effluent Limitations for EFF-003

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Ammonia Nitrogen (ELS Present)	mg/L	1.9	---	2.7	Basin Plan
Ammonia Nitrogen (ELS Present)	lbs/day	563	---	844	Basin Plan
Ammonia Nitrogen (ELS Absent)	mg/L	3.2	---	4.7	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	1,001	---	1,470	Basin Plan
TDS	mg/L	750	---	---	Basin Plan
Total Dissolved Solids	lbs/day	235,000	---	---	Basin Plan
Chloride	mg/L	180	---	---	Basin Plan
Chloride	lbs/day	56,300	---	---	Basin Plan
Sulfate	mg/L	300	---	---	Basin Plan
Sulfate	lbs/day	93,830	---	---	Basin Plan

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Boron	mg/L	1.0	---	---	Basin Plan
Boron	lbs/day	313	---	---	Basin Plan

Table F-34. Summary of Final Effluent Limitations for EFF-004 and EFF-005

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Basis
Ammonia Nitrogen (ELS Absent)	mg/L	2.0	---	4.5	Basin Plan
Ammonia Nitrogen (ELS Absent)	lbs/day	626	---	1,407	Basin Plan
Copper	µg/L	19	---	25	SIP/CTR
Copper	lbs/day	5.9	---	7.8	SIP/CTR
Arsenic	µg/L	10	---	---	SIP/CTR
Arsenic	lbs/day	3.1	---	---	SIP/CTR
Selenium	µg/L	4.5	---	7.0	SIP/CTR
Selenium	lbs/day	1.4	---	2.2	SIP/CTR
TDS	mg/L	450	---	---	Basin Plan
TDS	lbs/day	140,700	---	---	Basin Plan
Chloride	mg/L	100	---	---	Basin Plan
Chloride	lbs/day	31,300	---	---	Basin Plan
Sulfate	mg/L	100	---	---	Basin Plan
Sulfate	lbs/day	31,300	---	---	Basin Plan
Boron	mg/L	0.5	---	---	Basin Plan
Boron	lbs/day	156	---	---	Basin Plan

4.5. Interim Effluent Limitations

The San Jose Creek WRP will be subject to a compliance schedule for the temperature 80°F final effluent limitation, as described further in section 6.2.7 of this Fact Sheet. Since that compliance schedule exceeds one year, the Order includes an 86°F interim effluent limitation for temperature, except as a result of external ambient temperature.

4.6. Land Discharge Specifications – Not Applicable

4.7. Recycling Specifications

On December 3, 2019, the Discharger submitted “Information on Maximizing Recycled Water Usage” with the Report of Waste Discharge to meet the feasibility study requirements of Order Number R4-2015-0070. Information regarding recycled water use up to fiscal year 2017-18 was provided for all Joint Outfall System water reclamation facilities. For Fiscal Year 2017-18, of the 52.05 MGD of treated wastewater produced, 48.07 MGD was beneficially reused (92.3%). The 30th Annual Status Report on Recycled Water Use Fiscal Year 2018-19 shows that the facility produced 43.77 MGD of treated water and 37.95 MGD (86.7%) was beneficially reused. Tertiary-treated

effluent is mainly used for recharging the Central Basin groundwater aquifer via the San Gabriel Coastal Spreading Grounds. It is also used for irrigation and industrial uses for end users such as the California Country Club golf course, Puente Hills Landfill, Materials Recovery Facility, Puente Hills Energy Recovery from Landfill Gas Facility, Rose Hills Memorial Park, and the City of Industry and Rowland Water District end users. The report on maximizing recycled water usage concluded that water conservation reduces the availability of wastewater for treatment and efforts such as sewer relocations, dry-weather runoff diversions, flow equalization facilities, and diurnal storage tanks are needed to increase recycled water supplies. In July 2020, the Discharger placed two, recently constructed, four million-gallon flow equalization tanks into operation for improved treatment controls and potentially additional recycled water production at San Jose Creek WRP. Another factor that affects recycled water availability is attaining approval for reduction in discharge and meeting requirements of Water Code section 1211. On August 12, 2019 County Sanitation Districts of Los Angeles filed Wastewater Change Petition WW0107 with the State Water Board, Division of Water Rights to reduce discharge to San Jose Creek and the San Gabriel River. The petition was approved to reduce discharge to San Jose Creek via Discharge Number 002 from a monthly average of 9.5 MGD to a minimum monthly average of 5 MGD and discharge to San Gabriel River via Discharge Number 001 from a monthly average of 5.4 MGD to zero, with some discharge only during wet weather. The redirected flow of treated water would be used for potable and non-potable purposes in areas serviced by Central Basin Municipal Water District, Water Replenishment District of Southern California, Upper San Gabriel Valley Municipal Water District, Walnut Valley Water District, and Rose Hills Memorial Park.

A project that had been in development with Upper San Gabriel Valley Municipal Water District (USGVMWD), the Indirect Reuse Replenishment Project (IRRP), is currently on an indefinite hold. The project proposes to use two discharge points EFF-004 and EFF-005 from San Jose Creek WRP to recharge groundwater in the San Gabriel Valley Basin near the Santa Fe Dam. An engineering report and further revisions were submitted to DDW for approval. Subsequently, DDW sent comments in January 2019 which have not yet been addressed by USGVMWD. In addition, USGVMWD also must confirm recycled water availability before the project can move forward. The two proposed discharge points cannot be used until DDW has approved the Title 22 Engineering Report for the specific discharge and a WRR has been adopted by the Los Angeles Water Board for the area of discharge. Additional potential impacts to groundwater quality will be assessed during the issuance of the WRRs.

The Permittee shall continue to investigate the feasibility of recycling, conservation, and/or alternative disposal methods for wastewater (such as groundwater injection), and/or beneficial use of stormwater and dry-weather urban runoff. The Permittee shall submit an update to this feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

4.7.1 Current Reclaimed Project for Irrigation & Industrial Use

The production, distribution, and reuse of recycled water are presently regulated under Water Reclamation Requirements (WRRs Order Number 87-50, adopted by this Board on April 27, 1987). Pursuant to California Water Code section 13523, these WRRs

were reviewed in 1997 and were readopted without change in Board Order Number 97-072, adopted on May 12, 1997. Irrigation, industrial, and impoundment uses are regulated under the WRR.

4.7.2 Water Recycling Requirements for Groundwater Recharge

The Los Angeles County of Public Works, County Sanitation Districts of Los Angeles County, and Water Replenishment District of Southern California, collectively referred to as the Reclaimer, recharge the Rio Hondo and San Gabriel Spreading Grounds, located in the Montebello Forebay, with water purchased from JOS's Whittier Narrows, Pomona, and San Jose Creek WRPs, under Order Number 91-100, adopted by the Board on September 9, 1991, CI-5728, as amended by Order Number R4-2009-0048, adopted April 2, 2009, and by a June 4, 2013 letter from the Executive Officer to the Permittees and as amended by Order R4-2009-0048-A01 on April 10, 2014 for the Montebello Forebay.

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. Surface Water

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

5.2. Groundwater

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 groundwater recharge (GWR) beneficial use of the surface water. In addition to a discharge to surface water, the discharge may impact groundwater. Sections of San Gabriel River and San Jose Creek, near the San Jose Creek WRP discharge points, are designated with the GWR beneficial use. Surface water from San Gabriel River and San Jose Creek percolates into the San Gabriel Valley Groundwater Basin and Coastal Plain of Los Angeles (Central) Groundwater Basin with MUN beneficial use specified in the Basin Plan. Since groundwater from the Basin is used to provide drinking water to the community, the groundwater aquifers must be protected.

The issue of using MCLs as the basis for establishing final effluent limitations in an NPDES permit, to protect the GWR beneficial use of surface waters and the MUN beneficial use of the groundwater basins, has been addressed by the State Water Board in its WQO Number 2003-0009, in the *Matter of the Petitions of County Sanitation District Number 2 of Los Angeles and Bill Robinson for Review of Waste Discharge Requirements Order Number R4-2002-0142 and Time Schedule Order Number R4-2002-0143 for the Whittier Narrows Water Reclamation Plant*. The groundwater recharge (GWR) beneficial use is premised on a hydrologic connection between surface waters and groundwater, where the groundwater in this case is designated with an existing MUN beneficial use. Since there are no criteria or objectives specific to the GWR beneficial use, the Los Angeles Los Angeles Water Board's Basin Plan, staff based effluent limitations for the GWR use on the groundwater MUN objectives. By doing so, the Los Angeles Water Board ensures that the use of surface waters to recharge groundwater used as an existing drinking water source is protected. The fact that there are no criteria or objectives specific to the GWR beneficial use does not deprive the Los Angeles Water Board the ability to protect the use. The CWA contemplates enforcement of both beneficial uses as well as criteria in state water quality

standards. In California, an NPDES permit also serves as waste discharge requirements under state law.

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

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

Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) of 40 CFR allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.2. Special Provisions

6.2.1. Reopener Provisions

These provisions are based on 40 CFR part 123. The Los Angeles Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Los Angeles Water Board, including revisions to the Basin Plan.

6.2.2. Special Studies and Additional Monitoring Requirements

a. Antidegradation Analysis and Engineering Report for Any Proposed Plant Expansion. This provision is based on the State Water Board Resolution Number 68-16, which requires the Los Angeles Water Board in regulating the discharge of waste to maintain high quality waters of the state. The Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to 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 Discharger to report specific time schedules for the plant's projects. This provision requires the Discharger to submit a report to the Los Angeles Water Board for approval.

b. Operations Plan for Proposed Expansion. This provision is based on section 13385(j)(1)(D) of the Water Code and allows a time period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Permittee to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.

c. Treatment Plant Capacity. The treatment plant capacity study required by this Order shall serve as an indicator for the Los Angeles Water Board regarding Facility's increasing hydraulic capacity and growth in the service area.

6.2.3. Best Management Practices and Pollution Prevention

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

6.2.4. Construction, Operation, and Maintenance Specifications

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

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

a. Biosolids Requirements. To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Los Angeles 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. Filter Bypass Requirements. Conditions pertaining to bypass are contained in Attachment D, Section 1. Standard Provisions – Permit Compliance, subsection 1.7. The bypass or overflow of untreated or partially treated wastewater to waters of the State is prohibited, except as allowed under conditions stated in 40 CFR section 122.41(m) and (n). During periods of elevated, wet weather flows, a portion of the secondary treated wastewater is diverted around the tertiary filters as a necessary means to avoid loss of life, personal injury or severe property damage. There are no feasible alternatives to this diversion. These anticipated discharges are approved under the bypass conditions when all storage has been utilized and the resulting combined discharge of fully treated (tertiary) and partially treated (secondary) wastewater complies with the effluent and receiving water limitations in this Order. The ROWD constitutes notice of these anticipated bypasses.

d. Spill Reporting Requirements. This Order establishes a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from

its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

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

Furthermore, the SSS WDRs contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch that the Discharger's collection system is part of the system that is subject to this Order, certain standard provisions are applicable as specified in Provisions, section 6.3.5. For instance, the 24-hour reporting requirements in this Order are not included in the SSS WDRs. The Discharger must comply with both the SSS WDRs and this Order. The Discharger and public agencies that are discharging wastewater into the Facility were required to obtain enrollment for regulation under the SSS WDRs by December 1, 2006.

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

6.2.6. Other Special Provisions (Not Applicable)

6.2.7. Compliance Schedules

In general, an NPDES permit must include final effluent limitations that are consistent with CWA section 301 and with 40 CFR part 122.44(d). There are exceptions to this general rule. State Water Board adopted the *Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits* (Resolution 2008-0025), which is the governing policy for compliance schedules in NPDES permits (hereafter "Compliance Schedule Policy"). The Compliance Schedule Policy allows compliance schedules for new, revised, or newly interpreted WQOs or criteria, or in accordance with a TMDL. The Basin Plan specifies that WARM-designated waterbodies shall not be altered by more than 5°F above the natural temperature and at no time exceed 80°F as a result of waste discharges. The previous Order, based on understanding at the time, determined the appropriate effluent limitation to be 86°F, with an exception for higher discharge temperatures due to external ambient temperature. Also, the previous Order had a receiving water temperature limitation for downstream of the discharge of no more than 5°F above the natural temperature due to discharge. If downstream receiving water temperatures exceeded 86°F, the previous Order allowed an exception if it was due to high ambient air temperatures or high temperatures of the upstream receiving water. The previous Order based the previous numeric limitations on a white paper entitled, *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries*

and Enclosed Bays in the Los Angeles Region. The white paper evaluated the optimum temperatures for various aquatic life and found 86°F to be protective. However, the white paper is only applicable to discharges to estuaries or enclosed bays in the region. This permit is aligned with the Basin Plan water quality objectives and therefore, effluent and receiving water limitations of 80°F are included. All compliance schedules must be as short as possible and may not exceed 10 years from the effective date of the adoption, revision, or new interpretation of the applicable WQO or criterion, unless a TMDL allows a longer schedule. In this case, the length of the compliance schedule is based upon existing effluent and receiving water data which show the temperatures frequently exceed the limitations of this permit indicating substantial time will be needed for the study, planning, environmental review, design, construction, and financing of new actions needed to meet compliance. Where a compliance schedule for a final effluent limitation exceeds one year, the Order must include interim numeric effluent limitations for that constituent or parameter, interim requirements and dates toward achieving compliance, and compliance reporting within 14 days after each interim date. Interim numeric limitations and requirements are discussed below. The interim numeric limitation is appropriate because it is based on the previous Order and is the highest water quality that can currently be achieved coupled with the pollution prevention plan for source control. The interim limitations as determined under the Compliance Schedule Policy will not have any significant or potentially significant effects on the environment. The Order may also include interim requirements to control the pollutant, such as pollutant minimization and source control measures.

In accordance with the Compliance Schedule Policy and 40 CFR 122.47, a Discharger who seeks a compliance schedule must demonstrate additional time is necessary to implement actions to comply with a more stringent permit limitation. The Discharger must provide the following documentation as part of the application requirements:

a. Diligent efforts have been made to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream, and the results of those efforts;

b. Source control efforts are currently underway or completed, including compliance with any pollution prevention programs that have been established;

c. A proposed schedule for additional source control measures or waste treatment;

d. Data demonstrating current treatment facility performance to compare against existing permit effluent limits, as necessary to determine which is the more stringent interim permit effluent limit to apply if a schedule of compliance is granted;

e. The highest discharge quality that can reasonably be achieved until final compliance is attained;

f. The proposed compliance schedule is as short as possible, given the type of facilities being constructed or programs being implemented, and industry experience with the time typically required to construct similar facilities or implement similar programs; and

g. Additional information and analyses to be determined by the Regional Water Board on a case-by-case basis.

The permit limitations for temperature in effluent and receiving surface waters are more stringent than the limitations previously implemented. The new limitations are based on a new interpretation of the temperature WQO established in the Basin Plan. The Discharger has complied with the application requirements in paragraph 4 of the Compliance Schedule Policy. Based on information submitted with the Report of Waste Discharge, self-monitoring reports, infeasibility analysis, and other additional submittals, it has been demonstrated to the satisfaction of the Los Angeles Water Board that the Discharger needs time to implement actions to comply with the new effluent and receiving water limitations for temperature and has complied with the relevant governing authorities concerning compliance schedules. Therefore, this Order includes the following compliance schedule to comply with the newly interpreted effluent and receiving water limitations for temperature.

Table F-35. Compliance Schedule & Milestone Dates

Task	Completion Date
Submit and Begin Implementation of Pollution Prevention Plan (PPP) for Source Control	February 1, 2022
Release the Request for Proposal to Retain Consultant to Evaluate Temperature Impacts in the Watershed and Management Options	July 31, 2022
Finalize the Technical Workplan	July 31, 2023
Prepare a Technical Workplan Progress Report	July 31, 2024
Complete Implementation of Technical Workplan	July 31, 2025
Select Preferred Project and Begin Potential Regulatory Approval Process	May 1, 2026
Begin Preliminary Design	November 30, 2026
Complete Preliminary Design	November 30, 2027
Complete Environmental Review	November 30, 2028
Design Preferred Project	November 30, 2029
Issue Notice to Proceed for Project Work	November 30, 2030
Complete Preferred Project	November 30, 2031

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR sections 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorizes the Los Angeles Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program

(MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

7.1. Influent Monitoring

Influent Monitoring is required:

- To determine compliance with the permit conditions for $BOD_5$20°C and suspended solids removal rates.
- To assess treatment plant performance.
- To assess the effectiveness of the Pretreatment Program.
- As a requirement of the PMP.

7.2. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the MRP Attachment E. This provision requires compliance with the MRP, and is based on 40 CFR sections 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including this Order) issued by the Los Angeles Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the Water Code, and Los Angeles Water Board policies. The MRP also contains sampling program specifics for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with section 1.3 of the SIP, 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-36. Monitoring Frequency Comparison

Parameter	Monitoring Frequency (2015 Permit)	Monitoring Frequency (2021 Permit)
Total waste flow	Continuous	No change
Total residual chlorine	Continuous	No change
Turbidity	Continuous	No change
Temperature	Weekly	No change
pH	Weekly	No change

Parameter	Monitoring Frequency (2015 Permit)	Monitoring Frequency (2021 Permit)
Settleable solids	Weekly	No change
Total suspended solids	Weekly	No change
Oil and grease	Quarterly	No change
BOD	Weekly	No change
Dissolved oxygen	Monthly	No change
Total coliform	Daily	No change
Fecal Coliform	Weekly	Deleted
E.coli	Weekly	No change
Total Dissolved Solids	Monthly	No change
Sulfate	Monthly	No change
Chloride	Monthly	No change
Boron	Monthly	No change
Ammonia nitrogen	Monthly	No change
Nitrate plus nitrite as nitrogen	Monthly	No change
Nitrite nitrogen	Monthly	No change
Total Nitrogen	Quarterly	No change
Organic Nitrogen	Monthly	No change
Total Phosphorus	Monthly	No change
Orthophosphate-P	Monthly	No change
Surfactants (MBAS)	Quarterly	No change
Surfactants (CTAS)	Quarterly	No change
Total Hardness ($CaCO_3$)	Monthly	No change
Chronic toxicity	Monthly	No change
Iron	Semiannually	No change
Fluoride	Semiannually	No change
Antimony	Semiannually	No change
Arsenic	Monthly	No change
Cadmium	Semiannually	No change
Chromium III	Semiannually	No change
Chromium VI	Semiannually	No change
Copper	Monthly	No change
Lead	Monthly	No change
Mercury	Semiannually	No change
Nickel	Semiannually	No change
Selenium	Monthly	No change
Silver	Semiannually	No change

Parameter	Monitoring Frequency (2015 Permit)	Monitoring Frequency (2021 Permit)
Thallium	Semiannually	No change
Zinc	Semiannually	No change
Cyanide	Semiannually	Monthly
Dieldrin	Semiannually	Monthly
Benzo(a)pyrene	Semiannually	Monthly
Heptachlor	Semiannually	Monthly
2,3,7,8-TCDD (dioxin)	Semiannually	Monthly
Remaining USEPA priority pollutants excluding asbestos	Semiannually	No change
Radioactivity	Semiannually	No change
Perchlorate	Annually	No change
1,4-Dioxane	Annually	No change
1,2,3-Trichloropropane	Annually	No change
MTBE	Annually	No change

This Order has maintained the same monitoring frequency in the previous permit for most of constituents except for a few pollutants that exhibit reasonable potential to exceed the criteria. These pollutants are cyanide (reasonable potential for discharge points 001, 001A, and 001B), benzo(a)pyrene (reasonable potential for discharge points 001,001A, 001B, and 002), dieldrin (reasonable potential for all discharge points), and heptachlor and 2,3,7,8-TCDD (reasonable potential for discharge points 001, 001A, 001B, 003, 004, and 005). The monitoring frequency for these constituents has increased to monthly.

The monitoring for fecal coliform was removed because the monitoring results from E. coli testing would be indicative of the presence of fecal coliform.

7.3. Whole Effluent Toxicity Testing Requirements

WET testing protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or longer period and may measure mortality, reproduction, and growth. Chronic toxicity is a more stringent requirement than acute toxicity. A chemical at a low concentration can have chronic effects but no acute effects until it gets to the higher level. For this permit, chronic toxicity in the discharge is evaluated using USEPA's 2010 TST hypothesis testing statistical approach, and is expressed as "Pass" or "Fail" for the median monthly summary results and "Pass" or "Fail" and "Percent Effect" for each individual chronic toxicity result. The chronic toxicity effluent limitations are as stringent as necessary to protect the statewide Water Quality Objective for aquatic chronic toxicity. The rationale for WET has been discussed extensively in section 4.3.6. of this Fact Sheet.

7.4. Receiving Water Monitoring

7.4.1. Surface Water

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

7.4.2. Groundwater – (Not Applicable)

7.5. Other Monitoring Requirements

7.5.1. Watershed and Bioassessment Monitoring

The goals of the watershed-wide monitoring program, including the bioassessment monitoring, for the San Gabriel River Watershed are to:

a. Determine compliance with receiving water limits;
b. Evaluate progress in achieving numeric targets and waste load allocations in the San Gabriel River and Tributaries Metals TMDLs
c. Monitor trends in surface water quality;
d. Ensure protection of beneficial uses;
e. Provide data for modeling contaminants of concern;
f. Characterize water quality including seasonal variation of surface waters within the watershed;
g. Assess the health of the biological community; and
h. Determine mixing dynamics of effluent and receiving waters in the estuary.

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

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

8. CONSIDERATION OF NEED TO PREVENT NUISANCE AND WATER CODE SECTION 13241 FACTORS

8.1. Need to prevent pollution or nuisance: In establishing effluent limitations in this Order, the Los Angeles Water Board has considered state law requirements to prevent pollution or nuisance as defined in section 13050, subdivisions (*l*) and (m), of the Water

Code. Many effluent limitations are also required to comply with narrative water quality objectives in the Basin Plan. These state law 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.

8.2. Past, present, and probable future beneficial uses of water: Chapter 2 of the Basin Plan identifies designated beneficial uses for water bodies in the Los Angeles Region. Beneficial uses of water relevant to this Order are also identified above in Section 3.3. The Los Angeles Water Board has taken this factor into account in establishing effluent limitations in the Order. The limits herein protect the past, present and probable future beneficial uses of the water.

8.3. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto: The environmental characteristics are discussed in the Region's Watershed Management Initiative Chapter, as well as available in State of the Watershed reports and the State's CWA Section 303(d) List of impaired waters. The environmental characteristics of the hydrographic unit, including the quality of available water, will be improved by compliance with the requirements of this Order. Additional information on the San Gabriel River Watershed is available at https://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/ws_sangabriel.shtml.

8.4. Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area: The water quality standards necessary to protect beneficial uses of the waterbodies in the San Gabriel 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 CWA) for many of the impairments in the watershed. Several Los Angeles Water Board programs and actions are in place to address the water quality impairments in the watershed, including regulation of point source municipal and industrial discharges with appropriate NPDES permits and non-point source discharges such as irrigated agriculture. All these regulatory programs control the discharge of pollutants to surface 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.

8.5. Economic considerations: The Permittee did not present any evidence regarding economic considerations related to this Order. However, the Los Angeles Water Board has considered the economic impact of requiring certain provisions pursuant to state law. The additional costs associated with complying with state law requirements are reasonably necessary to prevent nuisance and protect beneficial uses identified in the Basin Plan. Further, the loss of, or impacts to, beneficial uses would have a detrimental economic impact. Economic considerations related to costs of compliance are therefore

not sufficient, in the Los Angeles Water Board's determination, to justify failing to prevent nuisance and protect beneficial uses.

8.6. Need for developing housing within the region: The Los Angeles Water Board does not anticipate that these state law requirements will adversely impact the need for housing in the area. The region generally relies on imported water to meet many of its water resource needs. Imported water makes up a vast majority of the region's water supply, with local groundwater, local surface water, and reclaimed water making up the remaining amount. This Order helps address the need for housing by controlling pollutants in discharges, which will improve the quality of local surface and ground water, as well as water available for recycling and reuse. This in turn may reduce the demand for imported water, thereby increasing the region's capacity to support continued housing development. A reliable water supply for future housing development is required by law, and with less imported water available to guarantee this reliability, an increase in local supply is necessary. Therefore, the potential for developing housing in the area will be facilitated by improved water quality.

8.7. Need to develop and use recycled water: The State Water Board's Recycled Water Policy requires the Los Angeles Water Boards to encourage the use of recycled water. In addition, as discussed immediately above, a need to develop and use recycled water exists within the region, especially during times of drought. To encourage recycling, the Permittee is required by this Order to continue to explore the feasibility of recycling to maximize the beneficial reuse of tertiary treated effluent. The Discharger shall submit an update to this feasibility study as part of the submittal of the Report of Waste Discharge (ROWD) for the next permit renewal.

9. PUBLIC PARTICIPATION

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

9.1. Notification of Interested Parties

The Los Angeles Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations, and the public notice, the fact sheet, and the draft order were posted on the Los Angeles Water Board's home page at https://www.waterboards.ca.gov/losangeles/ under the "Tentative Permits" heading. Permittee notification was provided by posting a copy of the notice at the entrance of the San Jose WRP, 1965 South Workman Mill Road, Whittier, CA 90601. In addition, interested agencies and persons are notified through a transmittal email to the Discharger, being included in the email transaction, for the Los Angeles Water Board's intention to prescribe WDRs for the discharge.

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

9.2. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Los Angeles Water Board at the address on the cover page of this Order, or by email submitted to danielle.robinson@waterboards.ca.gov.

To be fully responded to by staff and considered by the Los Angeles Water Board, the written comments were due at the Los Angeles Water Board office by **5:00 p.m. on September 10, 2021**.

9.3. Public Hearing

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

Date: October 14, 2021
Time: 09:00 a.m.
Location: Remote Meeting

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

9.4. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Los Angeles Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

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

Filing a petition does not automatically stay any of the requirements of this Order.

9.5. Information and Copying

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

Los Angeles Regional Water Quality Control Board
320 W. 4th Street, Suite 200

Los Angeles, CA 90013-2343

9.6. Register of Interested Persons

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

9.7. Additional Information

Requests for additional information or questions regarding this order should be directed to Danielle Robinson at (213) 576-6656 or via email at Danielle.robinson@waterboards.ca.gov.

ATTACHMENT G - TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN

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

ATTACHMENT H - PRETREATMENT REPORTING REQUIREMENTS

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

1. PRETREATMENT REQUIREMENTS

1.1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403, including any subsequent regulatory revisions to part 403. Where part 403 or subsequent revision places mandatory actions upon the 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 Order or the effective date of the part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines and other remedies by the USEPA or other appropriate parties, as provided in the Act. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the act.

1.2. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Permittee shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.

1.3. The Permittee shall perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:

1.3.1. Implement the necessary legal authorities as provided in 40 CFR section 403.8(f)(1);

1.3.2. Enforce the pretreatment requirements under 40 CFR sections 403.5 and 403.6;

1.3.3. Implement the programmatic functions as provided in 40 CFR section 403.8(f)(2); and

1.3.4. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR section 403.8(f)(3).

1.4. The Permittee shall submit annually a report to USEPA Pacific Southwest Region, and the State describing its pretreatment activities over the previous year. In the event the District is not in compliance with any conditions or requirements of this Order, then the District shall also include the reasons for noncompliance and state how and when the District shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on April 30 of each year. The report shall contain, but not be limited to, the following information:

1.4.1. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the publicly-owned treatment works (POTW) influent and effluent for those pollutants USEPA has identified under section 307(a) of the Act

which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. The District is not required to sample and analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this Order. The District shall also provide any influent or effluent monitoring data for nonpriority pollutants which the District believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR part 136;

1.4.2. A discussion of Upset, Interference or Pass Through incidents, if any, at the treatment plant which the District knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through or interference;

1.4.3. An updated list of the District'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 District shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations;

1.4.4. The District shall characterize the compliance status of each SIU by providing a list or table which includes the following information:

a. Name of the SIU;

b. Category, if subject to federal categorical standards;

c. The type of wastewater treatment or control processes in place;

d. The number of samples taken by the POTW during the year;

e. The number of samples taken by the SIU during the year;

f. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;

g. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;

h. Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR section 403.8(f)(2)(viii) at any time during the year; and

i. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance.

1.4.5. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs;

1.4.6. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;

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

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

2. LOCAL LIMITS EVALUATION

2.1. In accordance with 40 CFR section 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR section 403.5(c)(1) 180 days following the effective date of the Joint Water Pollution Control Plant (JWPCP) NPDES permit.

3. SIGNATORY REQUIREMENTS AND REPORT SUBMITTAL

3.1. Signatory Requirements.

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

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

3.2. Report Submittal.

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

A copy of the Annual Pretreatment Report must be sent to USEPA electronically to the following address: R9Pretreatment@epa.gov.