CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION

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ORDER R8-2022-0041
NPDES NO. CA8000409

WASTE DISCHARGE REQUIREMENTS AND MASTER RECYCLING PERMIT FOR INLAND EMPIRE UTILITIES AGENCY REGIONAL WATER RECYCLING FACILITIES

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

Table 1. Discharger Information

Discharger	Inland Empire Utilities Agency (IEUA)			
Name of Facility	Regional Water Recycling Plant No. 1 (RP-1)	Regional Water Recycling Plant No. 4 (RP-4)	Regional Water Recycling Plant No. 5 (RP-5)	Carbon Canyon Water Recycling Facility (CCWRF)
Facility Address	2662 East Walnut Street	12811 Sixth Street	6068 Kimball Avenue, Building "C"	14950 Telephone Avenue
	Ontario, CA 91761	Rancho Cucamonga, CA 91729	Chino, CA 91708	Chino, CA 91710
	San Bernardino County			

Table 2. Discharge Location

Discharge Point	**Effluent Description**	**Discharge Point Latitude (North)**	**Discharge Point Longitude (West)**	**Receiving Water**
DP-001	Tertiary treated wastewater from RP-5	33.94417º	-117.6428º	Prado Park Lake, overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
DP-002	Tertiary treated wastewater from RP-1 and RP-4	34.02528º	-117.5656º	Reach 1 of Cucamonga Creek, then to Mill Creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
DP-003	Tertiary treated wastewater from RP-5	33.96222º	-117.6781º	Reach 1B of Chino Creek, a tributary to Reach 3 of Santa Ana River

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
DP-004	Tertiary treated wastewater from CCWRF	33.98222º	-117.6967º	Reach 2 of Chino Creek, a tributary to Reach 3 of Santa Ana River
DP-005	Recycled water from RP-1	34.02472º	-117.5992º	Use area overlying Chino North "Max Benefit" GMZ (or Chino 1, 2, and 3 "Antidegradation" GMZs- see Fact Sheet)
DP-006	Recycled water from RP-4	34.08306º	-117.5264º	
DP-007	Recycled water from RP-5	33.96417º	-117.6733º	
DP-008	Recycled water from CCWRF	33.97972º	-117.6936º	
S-001	Storm water from RP-1, west	34.02667º	-117.5997º	Storm water runoff to Reach 1 of Cucamonga Creek
S-002	Storm water from RP-1, east	34.02444º	-117.5994º	Storm water runoff to Reach 1 of Cucamonga Creek
S-003	Storm water from RP-2	33.95278º	-117.6694º	Storm water runoff to Reach 1 B of Chino Creek

Table 3. Administrative Information

This Order was adopted on:	**June 3, 2022**
This Order shall become effective on:	**August 1, 2022**
This Order shall expire on:	**September 30, 2027**
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**April 3, 2027**
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, Santa Ana Region have classified this discharge as follows:	**Major**

I, Jayne Joy, Executive Officer, do hereby certify that this Order No. R8-2022-0041 with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on June 3, 2022.

Jayne Joy Digitally signed by Jayne Joy Date: 2022.06.21 16:18:21 -07'00'

Jayne Joy, P.E., Executive Officer

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TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Inland Empire Utilities Agency, Regional Water Recycling Plant Nos. 1, 4, and 5, and the Carbon Canyon Water Recycling Facility (Facilities) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

II. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (Santa Ana Water Board), finds:

A. Legal Authorities. This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260) and as a master recycling permit pursuant to section 13523.1 of article 4, chapter 7, division 7 of the California Water Code. This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.

B. Background and Rationale for Requirements. The Santa Ana Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through L are also incorporated into this Order.

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

D. Self-Generating Water Softeners. The Basin Plan Amendment noted in the Fact Sheet (Attachment F) of this Order, includes a salt and nutrient management plan for this region and a requirement that IEUA implement a salinity management program including the regulation of new and existing residential self-regenerating water softeners to the extent allowed by law. The salt and nutrient management plan was based on evidence in the record demonstrating that managing salinity inputs in this manner would ensure attainment of water quality objectives and protection of beneficial uses.

The control of residential use of self-regenerating water softeners will contribute to the achievement of the water quality objectives approved in the Basin Plan Amendment. This finding is based on evidence in the record demonstrating that salinity input from residential use of self-regenerating water softeners is a significant source of controllable TDS within IEUA's sewer system and that significant adverse regional economic impacts will result if residential use of self-regenerating water softeners is not controlled.

E. Notification of Interested Parties. The Santa Ana 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 (Attachment F).

F. Consideration of Public Comment. The Santa Ana 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 (Attachment F).

THEREFORE, IT IS HEREBY ORDERED that this Order supersedes and rescinds Order R8-2015-0036, except for purposes of enforcement of the previous order, 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 Discharger shall comply with the requirements in this Order. This action in no way prevents the Santa Ana Water Board from taking enforcement action for violations of the previous order.

III. DISCHARGE PROHIBITIONS

A. The discharge of secondary treated wastewater to Chino Creek and Reach 1 of Cucamonga Creek other than when flow in the creeks results in a dilution of 20:1 or more at the point of discharge is prohibited.

B. The discharge of wastewater at a location or in a manner different from those described in this Order is prohibited.

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

D. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

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

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Points (DPs) 001, 002, 003, and 004

1. Final Effluent Limitations for Discharges Under Conditions Without 20:1 Dilution in the Receiving Water – DPs 001, 002, 003, and 004

a. The Discharger shall maintain compliance with the following effluent limitations at DPs 001, 002, 003, and 004, with compliance measured at Monitoring Locations M-001A, M-002, M-003, and M-004, respectively, as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 4. Effluent Limitations at DP-001 through DP-004 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Monthly Median[4]	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	20	30	---	---	---
For DP-002 (RP-1 + RP-4)	lbs/day[1]	9,674	14,512	---	---	---
For DP-001 & DP-003 (RP-5)	lbs/day[1]	2,502	3,753	---	---	---
For DP-004 (CCWRF)	lbs/day[1]	2,002	3,002	---	---	---
Total Suspended Solids (TSS)	mg/L	20	30	---	---	---
For DP-002 (RP-1 + RP-4)	lbs/day[1]	9,674	14,512	---	---	---
For DP-001 & DP-003 (RP-5)	lbs/day[1]	2,502	3,753	---	---	---
For DP-004 (CCWRF)	lbs/day[1]	2,002	3,002	---	---	---
Ammonia Nitrogen	mg/L	4.5	---	---	---	---
Total Residual Chlorine	mg/L	---	---	---	---	0.1[2]
Chronic Toxicity[3] *Ceriodaphnia dubia* as test species survival and reproduction	Pass/Fail (TST), % Effect			Pass or % Effect <50[5]	Pass[4]	

1 Mass-based effluent limitations were calculated as mass rate = Design Flow in MGD x concentration (mg/L) x 8.34. Also, the design flow for each facility is shown in Table F-1 of Attachment F.

2 See section IV.A.1.j.

3 As specified in section IV.A.3. of this Order and section V. of the MRP (Attachment E).

4 No more than one *Ceriodaphnia dubia* chronic aquatic toxicity test initiated in a calendar month shall result in a "Fail" at the in-stream waste concentration (IWC) for any endpoint. This Monthly Median Effluent Limit (MMEL) is substituted by a Monthly Median Effluent Target (MMET) until December 31, 2023 and is not an Effluent Limitation. Not meeting the MMET does not constitute an effluent limitation violation (see section IV.A.3. of this Order and section IV.C.5. of Attachment F). The MMEL shall become effective as of January 1, 2024.

5 No *Ceriodaphnia dubia* chronic aquatic toxicity test shall result in a "Fail" at the IWC for the sub-lethal endpoint measured in the test and a percent effect for the survival endpoint or sub-lethal endpoint (when survival endpoint is not available) greater than or equal to 50 percent.

b. The Discharger shall maintain compliance with the following effluent limitations at DP-001, with compliance measured at Monitoring Location M-001A as described in the MRP, Attachment E:

Table 5. Effluent Limitations at DP-001 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
2,3,7,8-TCDD	µg/L	1.4E-8	---	2.8E-8	---	---

c. The Discharger shall maintain compliance with the following effluent limitations at DP-002, with compliance measured at Monitoring Location M-002 as described in the MRP, Attachment E:

Table 6. Effluent Limitations at DP-002 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Cadmium, Total Recoverable	µg/L	1.0	---	2.0	---	---
Copper, Total Recoverable	µg/L	7.7	---	10.5	---	---
Lead, Total Recoverable	µg/L	2.2	---	4.4	---	---
Zinc, Total Recoverable	µg/L	76	---	106	---	---
Selenium	µg/L	4.1		8.2		
Bis (2-Ethylhexyl) Phthalate	µg/L	4.0		8.0		
Carbon Tetrachloride	µg/L	0.5		1.0		

d. The Discharger shall maintain compliance with the following effluent limitations at DP-003, with compliance measured at Monitoring Location M-003 as described in the MRP, Attachment E:

Table 7. Effluent Limitations at DP-003 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Copper, Total Recoverable	µg/L	10.3	---	14.7	---	---
Lead, Total Recoverable	µg/L	2.7		5.3		
2,3,7,8-TCDD (Dioxin)	µg/L	1.4E-08	---	2.8E-08	---	---

e. The Discharger shall maintain compliance with the following effluent limitations at DP-004, with compliance measured at Monitoring Location M-004 as described in the MRP, Attachment E:

Table 8. Effluent Limitations at DP-004 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Chlorodibromomethane	µg/L	34	---	59	---	---
Dichlorobromomethane	µg/L	46	---	67	---	---
Pentachlorophenol	µg/L	1	---	2	---	---
Copper, Total Recoverable	µg/L	10.3		14.7		
Lead, Total Recoverable	µg/L	2.7		5.3		

f. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

g. **Total Dissolved Solids (TDS):**

i. The 12-month flow-weighted running average TDS concentration and mass emission rates shall not exceed 550 mg/L and 366,960 lbs/day[1], respectively. This limitation may be met on an agency-wide using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF, or

ii. The 12-month flow weighted running average TDS concentration shall not exceed the 12-month flow weighted running average TDS concentration in the water supply by more than 250 mg/L[2]. This limitation may be met on an agency-wide using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF service areas.

h. **Total Inorganic Nitrogen (TIN):**

The 12-month-flow weighted running average Total Inorganic Nitrogen (TIN) concentration and mass emission rates of the discharge shall not exceed 8 mg/L and 5,338 lbs/day[3], respectively. This limitation may be met on an agency-wide using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5, and CCWRF service areas.

i. **Disinfected Tertiary Treated Wastewater:**

[1] Based on wasteload allocation volume of 80 MGD and concentration of 550 mg/L.
[2] See Section VII.I. – Compliance Determination.
[3] Based on wasteload allocation volume of 80 MGD and concentration of 8 mg/L.

The discharge shall at all times be oxidized, filtered, and subsequently disinfected wastewater and shall meet the following limitations:

i. **Turbidity:**

The turbidity of the filtered effluent shall not exceed any of the following:

(a) Average of 2 Nephelometric Turbidity Units (NTU) within any 24-hour period;

(b) 5 NTU more than 5 percent of the time in any 24-hour period; and

(c) 10 NTU more than one minute in any 24-hour period.

ii. **Turbidity:**

The turbidity of disinfected tertiary recycled water that is passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane shall not exceed any of the following:

(a) 0.2 NTU more than 5 percent of the time within any 24-hour period; and

(b) 0.5 NTU at any time.

iii. **Disinfection:**

The discharge shall meet the following:

(a) When a chlorine disinfection process is utilized, based on Total Chlorine Residual (TCR), following filtration, a TCRCT (the product of TCR and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter shall be provided at all times, with a modal contact time[4] of at least 90 minutes[5], based on peak dry weather design flow[6].

(b) When a TCR based disinfection process that is combined with the filtration process is utilized, the combined process shall demonstrate inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

iv. **Coliform Organisms:**

The disinfected wastewater shall meet the following:

[4] Modal contact time and TCRCT shall be calculated based on the minimum 1-hour average value in a 24-hr period.

[5] The modal contact time requirement is applicable unless the receiving water provides at least a 1:1 dilution. The receiving water considered here shall exclude upstream POTW effluent flow.

[6] "Peak Dry Weather Flow" means the arithmetic mean of the maximum peak flow rates sustained over some period of time (for example, three hours) during the maximum 24-hour dry weather period. Dry weather period is defined as period of little or no rainfall.

(a) The weekly median concentration of total coliform bacteria shall not exceed a Most Probably Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).

To comply with the limit, the 7-day median MPN must not exceed 2.2 per 100 ml on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week. Calendar week means a week beginning with Sunday and ending with Saturday.

(b) The number of total coliform bacteria shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period.

(c) No total coliform bacteria sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

j. **Total Chlorine Residual:**

The discharge shall not exceed the following:

i. The total time during which the total chlorine residual values are above 0.1 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month);

ii. No individual excursion from 0.1 mg/L value shall exceed 5 minutes; and

iii. No individual excursion shall exceed 5.0 mg/L.

k. **pH:**

The pH of the discharge shall be maintained between 6.5 to 8.5 pH units.

Compliance with pH limits shall be determined as follows:

i. The total time during which the pH is outside the range of 6.5 to 8.5 pH units shall not exceed 7 hours and 26 minutes in any calendar month; and

ii. No individual excursion from the above range shall exceed 60 minutes.

l. Wastewater discharged at DP-001 shall be limited to treated and disinfected effluent that meets the conditions in Section IV.A.1.

m. Wastewater discharged at DP-002 through DP-004 shall be limited to treated and disinfected effluent that meets the conditions in Section IV.A.1., except for discharges of treated wastewater that meets the conditions specified in Section IV.A.2., when the flow[7] in Reaches 1B or 2 of Chino Creek or Reach 1 of Cucamonga Creek results in a dilution of 20:1 or more at the point of discharge.

[7] Exclusive of discharges to surface waters from upstream POTWs.

2. Effluent Limitations for Discharges Under Conditions With 20:1 or More Dilution in the Receiving Water – DPs 002, 003, and 004

a. Whenever the flow[7] at Monitoring Locations R-002U, R-003U, and/or R-004U results in a dilution of 20:1 (receiving water flow: wastewater flow) or more, the Discharger shall comply with the following effluent limitations at DPs 002, 003, and/or 004 with compliance measured at Monitoring Locations M-002, M-003, and M-004, respectively, however, for parameters not included in this section, the Discharger shall continue to comply with the effluent limitations specified in section IV.A.1., above, including the mass-based effluent limitations for BOD_5 and TSS:

Table 9. Effluent Limitations at DP-002 through DP-004 With 20:1 Dilution

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD_5	mg/L	30	45	---	---	---
TSS	mg/L	30	45	---	---	---

b. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent.

c. **Coliform Organisms**:

The weekly median number of coliform bacteria shall not exceed a median of 23 per 100 ml as determined from the daily coliform bacteria values for the last seven (7) days. To comply with this limit, the 7-day median MPN must not exceed 23 per 100 ml on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 23 for more than one day in the week. Calendar week means a week beginning with Sunday and ending with Saturday.

d. **Total Chlorine Residual:**

The discharge shall not exceed the following:

i. The total time during which the total chlorine residual values are above 2.1 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month);

ii. No individual excursion from 2.1 mg/L value shall exceed 5 minutes; and

iii. No individual excursion shall exceed 10.5 mg/L.

e. **pH**:

The pH of the discharge shall be maintained between 6.5 to 8.5 pH units.

Compliance with pH limits shall be determined as follows:

i. The total time during which the pH is outside the range of 6.5 to 8.5 pH units shall not exceed 7 hours and 26 minutes in any calendar month; and

ii. No individual excursion from the above range shall exceed 60 minutes.

3. Toxicity Requirements

a. There shall be no chronic toxicity in the discharge nor shall the discharge cause any chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life.

b. The narrative chronic toxicity limitation is expressed as a null hypothesis (H_0) and regulatory management decision (b value) of 0.75 for the chronic toxicity methods in Attachment E – Monitoring and Reporting Program. The null hypothesis for the effluent discharge from the Facilities is:

H_0: Mean response (100% effluent) ≤ 0.75 mean response (control)

Results obtained from a single-concentration chronic toxicity test shall be analyzed using the Test of Significant Toxicity hypothesis testing approach (EPA 833-R-10-004, 2010) in Attachment E – Monitoring and Reporting Program. Compliance with the Maximum Daily Effluent Limitation (MDEL) for chronic toxicity is demonstrated by rejecting the null hypothesis, resulting in a "Pass", and "Percent Effect" < 50, as described in section V.A. of Attachment E.

The Median Monthly Effluent Target (MMET) or Median Monthly Effluent Limit (MMEL) for chronic toxicity is exceeded when two or more toxicity tests in a calendar month result in a "Fail" in accordance with the TST approach. The MMET is effective through December 31, 2023, and the MMEL shall be effective as of January 1, 2024 and thereafter. The MDEL, MMEL, and MMET for chronic toxicity are set at the "in-stream" waste concentration (IWC) for the discharge (100% effluent) and expressed in units of the TST statistical approach ("Pass" or "Fail", "Percent Effect").

All NPDES effluent monitoring for the chronic toxicity effluent target and limitation shall be reported using the 100% effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (Ho) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using a multi-concentration test design when required by Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R-02/013, 2002). The Santa Ana Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see section IV.C.7 of the Fact Sheet (Attachment F)). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to reporting for the no-observed-effect-concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results. SOPs used by the toxicity testing

laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Santa Ana Water Board (40 CFR section 122.41(h)). The Santa Ana Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Discharger, the State Water Board's Quality Assurance Officer, and/or the DDW's Environmental Laboratory Accreditation Program (ELAP) as needed.

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – DPs 005 through 008

1. Unless otherwise specified hereinafter, compliance with the following limitations shall be measured at Monitoring Locations REC-001 through REC-004 as described in the attached MRP (Attachment E). The Discharger shall submit for approval by the Executive Officer other monitoring location(s) not specified herein where representative samples of recycled water could be obtained for laboratory testing and analysis.
2. The Discharger shall comply with the following limitations for the production and use of recycled water supplied for landscape irrigation, or other similar uses:
   a. Physical and Biological Limitations:

Table 10. Recycled Water Discharge Specifications

Parameter	Units	Discharge Specifications	
		Average Monthly	Average Weekly
BOD_5	mg/L	20	30
TSS	mg/L	20	30

   b. **Total Dissolved Solids (TDS):** The following TDS limitations apply to recycled water uses, except groundwater recharge, that would affect underlying Groundwater Management Zone(s). These limitations may be met on an agency-wide basis using flow-weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5, and CCWRF.
      i. If maximum benefit is demonstrated (see Provisions VI.C.6.), the 12-month flow weighted running average total dissolved solids concentration shall not exceed 550 mg/L.
      ii. If maximum benefit is not demonstrated (see Provisions VI.C.6.), the 12-month flow weighted running average total dissolved solids concentration shall not exceed the following:

Table 11. Recycled Water Effluent TDS Limitations

Groundwater Management Zone	TDS Limit (mg/L)
Chino 1	280

Groundwater Management Zone	TDS Limit (mg/L)
Chino 2	250
Chino 3	260

c. Recycled water, as described in Section 60307(a) of Division 4, Chapter 3, Title 22, California Code of Regulations, supplied for structural fire-fighting, irrigation of food crops, parks and playground, school yards, residential landscaping and other irrigation uses not specified in Section 60304(a) of Division 4, Chapter 3, Title 22, California Code of Regulations or not prohibited in other Sections of the California Code of Regulations shall at all times be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

i. Turbidity:

When filtration is through natural undisturbed soils or a bed of filter media, the turbidity of the filter effluent shall not exceed any of the following:

(a) Average of 2 NTU within any 24-hour period;

(b) 5 NTU more than 5 percent of the time in any 24-hour period; and

(c) 10 NTU more than one minute in any 24-hour period.

ii. Turbidity:

The turbidity of disinfected tertiary recycled water that is passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane shall not exceed any of the following:

(a) 0.2 NTU more than 5 percent of the time within any 24-hour period; and

(b) 0.5 NTU at any time.

iii. Disinfection for Non-potable Reuse:

The Discharger shall comply with the following:

(a) When a Total Chlorine Residual (TCR) disinfection process is utilized followed by filtration, a TCR CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; shall be provided.

(b) When a disinfection process combined with the filtration process is utilized, the combined process shall demonstrate inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

iv. Disinfection for Indirect Potable Reuse at DP-005 and DP-006:

The Discharger shall comply with the following:

(a) When a chlorine disinfection process is utilized, based on Free Chlorine Residual (FCR), following filtration, a FCRCT value of no less than 41 minutes-milligram per liter shall be provided at all times, based on a 15-minute running average using a baffling factor of 0.5 to obtain 6-log virus reduction pursuant with Title 22, section 60320.108. Also, a minimum FCR of 1.0 mg/L shall be provided at each Chlorine Contact Basin's (CCB's) effluent monitoring station, based on a 15-minute running average contact time.

(b) RP-1 and RP-4 must be operated with a built-in automatic reliability feature that must be triggered when the FCRCT or the FCR are below 41 minute-milligram-per-liter or 1.0 mg/L respectively pursuant to Title 22, section 60341.

(c) Under the FCR disinfection process, the effluent turbidity, as measured before the disinfection process, must not exceed an average of 2 NTU within a 24-hour period and 5 NTU at any time. Exceedance(s) of turbidity must trigger automatic reliability feature in accordance with Title 22, section 60341.

(d) The Discharger must notify DDW if additional disinfection segments (i.e. CCBs) are added, or if the disinfection segment geometry is modified. If necessary, the Discharger must reevaluate the T_{10} by conducting a new tracer study in consultation with DDW.

(e) In addition, the Discharger must not exceed the peak wet weather flowrate for any CCB at RP-1 and RP-4 and ammonia must be monitored in the upstream secondary treatment process to optimize nitrification and control ammonia breakthrough. Ammonia analyzers must be inspected and checked against a reference unit routinely to determine accuracy. If an online analyzer reading varies from the reference unit, the online analyzer must be recalibrated by a procedure recommended by the manufacturer.

(f) Online analyzers for turbidity, free chlorine, and total chlorine and flow meters must be installed and properly calibrated based on manufacturers recommendations to ensure proper disinfection at all times. All these types of online analyzers must be routinely inspected and checked against a reference unit to determine accuracy. If an online analyzer reading varies from the reference unit reading, the online analyzer must be recalibrated by a procedure recommended by the manufacturer. Flow meters must be inspected and checked against other flow determination methods routinely to determine accuracy.

v. <u>Coliform:</u>

The Discharger shall comply with the following:

(a) The weekly median concentration of total coliform bacteria shall not exceed an MPN of 2.2 total coliform bacteria per 100 ml.

To comply with the limit, the 7-day median MPN must not exceed 2.2 per 100 ml on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week. Calendar week means a week beginning with Sunday and ending with Saturday.

(b) The number of total coliform bacteria shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period.

(c) No total coliform bacteria sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

d. Recycled water supplied for irrigation of food crops where the edible portion is produced above ground and not contacted by the recycled water shall at all times be adequately oxidized and disinfected so that the average weekly total coliform bacteria in the disinfected effluent does not exceed a MPN of 2.2 per 100 ml utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 23 per 100 ml in more than one sample.

e. Recycled water supplied for the uses listed below shall be an oxidized and disinfected water so that:

i. The average weekly total coliform bacteria in the disinfected effluent does not exceed an MPN of 23 per 100 ml utilizing the bacteriological results of the last seven days for which analyses have been completed. To comply with the limit, the 7-day median MPN must not exceed 23 per 100 ml on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 23 for more than one day in the week, and

ii. The number of total coliform bacteria does not exceed an MPN of 240 per 100 ml in more than one sample in any 30-day period.

The uses are:

i. Industrial boiler feed, nonstructural fire-fighting, backfill consolidation around non-potable piping, soil compaction, mixing concrete, dust control on roads and streets, cleaning roads, sidewalks and outdoor work areas and industrial process water that will not come into contact with workers.

ii. Irrigation of cemeteries, freeway landscaping, restricted access golf courses, ornamental nursery stock and sod farms where access by the general public is not restricted, pasture for animals producing milk for human consumption, and any nonedible vegetation where access is

controlled so that irrigated area cannot be used as if it were part of a park, playground or school yard.

f. Recycled water supplied for uses specified in Sections 60304 and 60307 of Title 22 where filtration is provided pursuant Section 60301.320(a) and coagulation is not used as part of the treatment process, shall at all times comply with the following:

i. The turbidity of the influent to the filters is continuously measured and the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU;

ii. The filter effluent turbidity shall not exceed 2 NTU; and

iii. Should the filter influent turbidity exceed 5 NTU for more than 15 minutes, chemical addition shall be automatically activated if available, if not, the wastewater shall be diverted.

3. The Discharger shall be responsible for assuring that recycled water is delivered and utilized in conformance with this Order and the recycling criteria contained in Title 22, Division 4, Chapter 3, Sections 60301 through 60355, California Code of Regulations. The Discharger shall conduct periodic inspections of the facilities of the recycled water users to monitor compliance by the users with this Order.

4. The Discharger shall establish and enforce the Rules and Regulations for Recycled Water Users, governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the uniform statewide recycling criteria established pursuant to California Water Code Section 13521.

a. Use of recycled water by the Discharger shall be consistent with its Rules and Regulations for Recycled Water Use.

b. Any revisions made to the Rules and Regulations shall be subject to the review of the Santa Ana Water Board, the State Water Resources Control Board's (State Water Board) Division of Drinking Water (DDW), and the County Environmental Health Department. The revised Rules and Regulations or a letter certifying that the Discharger's Rules and Regulations contain the updated provisions in this Order, shall be submitted to the Santa Ana Water Board and DDW within 60 days of adoption of this Order by the Santa Ana Water Board.

5. The Discharger shall, within 60 days of the adoption of this Order, review and update as necessary its program to conduct compliance inspections of recycled water reuse sites. Inspections shall determine the status of compliance with the Discharger's Rules and Regulations for Recycled Water Use.

6. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in a pollution or nuisance, or adversely affect water quality, as defined in the California Water Code.

7. Prior to delivering recycled water to any new user, the Discharger shall submit to the Santa Ana Water Board, the DDW and the San Bernardino County

Environmental Health Department a report containing the following information for review and approval:

a. The average number of persons estimated to be served at each use site area on a daily basis.

b. The specific boundaries of the proposed use site area, including a map showing the location of each facility, drinking water fountain, and impoundment to be used.

c. The person or persons responsible for operation of the recycled water system at each use area.

d. The specific use to be made of the recycled water at each use area.

e. The methods to be used to assure that the installation and operation of the recycled system will not result in cross connections between the recycled water and potable water piping systems. This shall include a description of the pressure, dye or other test methods to be used to test the system.

f. Plans and specifications which include the following:

i. Proposed piping system to be used.

ii. Pipe locations of both the recycled and potable systems.

iii. Type and location of the outlets and plumbing fixtures that will be accessible to the public.

iv. The methods and devices to be used to prevent backflow of recycled water into the potable water system.

v. Plan notes relating to specific installation and use requirements.

8. The use of recycled water at new use sites shall only commence after the DDW grants final approval for such use. The Discharger shall provide the Santa Ana Water Board with a copy of the DDW approval letter within 30 days of the approval notice

9. The Discharger shall require each user of recycled water to designate an on-site supervisor responsible for the operation of the recycled water distribution system within the recycled water use area. The supervisor shall be responsible for enforcing this Order, prevention of potential hazards, the installation, operation and maintenance of the distribution system, maintenance of the distribution and irrigation system plans in "as-built" form, and for the distribution of the recycled wastewater in accordance with this Order.

10. Recycled water shall at all times be maintained within the property lines of any user. There shall be no direct or indirect discharge of recycled water into drainage systems that could affect surface water quality standards.

11. To produce recycled water for indirect potable reuse, the Discharger shall implement the following requirement:

a. The Discharger must update the Operations Plans for RP-1 and RP-4 and submit a copy to DDW for review and approval, based on the August 17,

2021 letter entitled, “Conditional Acceptance of the Free Chlorine Disinfection for the Inland Empire Utilities Agency at RP-1 and RP-4 WWTP to Comply with Title 22 Requirements (3690001-744),” issued by DDW to the Discharger, and other approved reports (Reports) submitted by the Discharger to DDW as referenced in DDW’s August 17, 2021 conditional acceptance letter. A copy of the approved Operations Plan should be regularly updated and be readily available to operators and regulatory agencies (if requested). In addition, a quick reference plant operations data sheet must be posted at the control center of RP-1 and RP-4 and include the following:

i. The alarm set points as described in the Reports and DDW’s August 17, 2021 conditional acceptance letter that trigger corrective actions other than automatic diversion, suspension, or retreatment. Minimum alarms include FCRCT (low) as calculated by SCADA, TCRCT (low) as calculated by SCADA, FCR (low) as measured at each CCB effluent, hydraulic detention time (low) as calculated by SCADA, Turbidity (high) as measured upstream of disinfection process, and Ammonia (high) as measured upstream of CCBs.

ii. The alarm set points as described in the Reports and DDW’s August 17, 2021 conditional acceptance letter that trigger corrective actions other than automatic diversion, suspension, or retreatment. Minimum alarms include FCRCT (low-low) as calculated by SCADA, TCRCT (low-low) as calculated by SCADA, FCR (low) as measured at each CCB effluent, hydraulic detention time (low-low) as calculated by SCADA, and Turbidity (high-high) as measured upstream of disinfection process.

iii. The required frequency of calibration for critical online instruments.

b. The Discharger must submit monthly reports to DDW and the Santa Ana Water Board electronically by the 10th day of the following month. The Discharger must report “Yes” or “No” for each day as to whether the total required pathogenic microorganism log reductions (12-logs virus, 10-logs *Giardia cyst*, and 10-logs *Cryptosporidium oocyst*) have been achieved based on the overall disinfection and underground retention time. An overall LRV must be provided daily unless the disinfection at RP-1, RP-4, or both are offline for a 24-hour period. The monthly reports must include the following for RP-1 and RP-4:

i. Daily minimum log reduction achieved,

ii. Daily minimum FCRCT achieved based on 15-minute average in a 24-hour period,

iii. Daily minimum FCR based on 15-minute average in a 24-hour period,

iv. Daily minimum TCRCT based on 15-minute average in a 24-hour period,

v. Monthly minimum temperature and maximum pH, and

vi. Based on the calculations of log reductions achieved daily by the entire treatment system and underground retention time, IEUA must report the total log reductions achieved per pathogen and whether the necessary log reductions (12-logs virus, 10-logs *Giardia cyst*, and 10-logs *Cryptosporidium oocyst*) have been achieved.

D. Storm Water Discharge Specifications – S-001, S-002, and S-003

1. Storm water discharges shall maintain compliance with the following effluent limitations at S-001, S-002, and S-003 with compliance measured at monitoring locations STORM-001, STORM-002, and STORM-003 and shall not:
   a. Cause or contribute to a violation of any applicable water quality standards contained in the Basin Plan or in the State or Federal regulations.
   b. Cause or threaten to cause pollution, contamination, or nuisance.
   c. Contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR 110.6, 117.21 and/or 40 CFR 302.6.
   d. Adversely impact human health or the environment.
   e. Result in noncompliance with the lawful requirements of municipalities, counties, drainage districts, and other local agencies on storm water discharges into storm drain systems or other courses under their jurisdiction.
2. Storm water discharges from the Facilities shall comply with the Stormwater Requirements in Attachments J and K.
3. The Dischargers shall implement BMPs that comply with the BAT/BCT requirements of this Order to reduce or prevent discharges of pollutants in their storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.
4. The Discharger must update and implement the Storm Water Pollution Prevention Plan for RP-1 in accordance with Attachment J of this Order.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in Prado Park Lake, Reach 1 of Cucamonga Creek, Reaches 1A, 1B, and 2 of Chino Creek, or Reach 3 of the Santa Ana River and downstream reaches:
   a. Coloration of the receiving waters, which causes a nuisance or adversely affects beneficial uses.
   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

c. An increase in the amounts of suspended or settleable solids in the receiving waters, which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

d. Taste or odor-producing substances in the receiving waters at concentrations, which cause a nuisance or adversely affect beneficial uses.

e. The presence of radioactive materials in the receiving waters in concentrations, which are deleterious to human, plant or animal life.

f. The depletion of the dissolved oxygen concentration below 5.0 mg/L.

g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

2. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Santa Ana Water Board or State Water Board, as required by the Clean Water Act and regulations adopted thereunder.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels, which are harmful to human health or animal life.

4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 milligram methylmercury/kilogram. (See also Section VI.C.1.e. and VI.C.2.a, below).

B. Groundwater Limitations

1. The discharge of waste or use of recycled water shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

a. 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.

b. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, (e.g., maximum daily effluent limitation), or receiving water limitation of this Order, the Discharger shall notify the Santa Ana Water Board by telephone (951) 782-4130 or by email at info8@waterboards.ca.gov within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, and/or email within 24 hours. The email notifications allow for proper documentation and can help to outline the issue that has occurred, unless the Santa Ana 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. Other noncompliance requires written notification as above at the time of the normal monitoring report.

c. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the CWC.

d. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.

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

   i. Violation of any terms or conditions of this Order;

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

   iii. In addition to any other grounds specified herein, this Order may be modified or revoked at any time if, on the basis of any data, the Santa Ana Water Board determines that the continued discharges may cause unreasonable degradation of water quality.

f. If an effluent standard or discharge prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Clean Water Act for a toxic pollutant which is present in the discharge, and such standard or prohibition is more stringent than any limitation for that pollutant in this Order, this Order may be modified or revoked and reissued to conform to the effluent standard or discharge prohibition.

g. The Discharger shall file with the Santa Ana Water Board a Report of Waste Discharge at least 180 days before making any material change in the

character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

i. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.

ii. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.

iii. Significantly changing the method of treatment.

iv. Increasing the treatment plant design capacity beyond that specified in this Order.

h. The provision of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

i. The Discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

j. The Discharger shall optimize chemical additions needed in the treatment process to meet waste discharge requirements so as to minimize total dissolved solid increases in the treated wastewater.

k. Collected screening, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Santa Ana Water Board's Executive Officer.

l. If the Discharger demonstrates a correlation between the biological oxygen demand (BOD_5) and total organic carbon (TOC) concentrations in the effluent to the satisfaction of the Executive Officer, compliance with the BOD_5 limits contained in this Order may be determined based on analyses of the TOC of the effluent.

m. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Santa Ana Water Board.

n. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods within a 100-year return frequency.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. This MRP may be modified by the Executive Officer at any time during the term of this Order and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any increase in the number of parameters to be

monitored, the frequency of the monitoring or the number and size of samples to be collected may be reduced back to the levels specified in the original MRP at the discretion of the Executive Officer

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened to address any changes in State or federal statutes, plans, policies or regulations that would affect the quality requirements for the discharges.

b. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality objectives.

c. This Order may be reopened and modified if new or revised water quality objectives or total maximum daily loads (TMDLs) come into effect for contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order may be modified as necessary to reflect the updated water quality objectives and wasteload allocations in the TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted water quality objectives, TMDLs, or as otherwise permitted under federal regulations governing NPDES permit modifications.

d. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity. Also, this Order may be reopened to specify the most sensitive test species once the species sensitivity screening is completed by the Discharger as required under section V.A.6. of Attachment E. However, reopening is not required if the species sensitivity screening indicates the most sensitive species is the same as the species as the most sensitive species already specified in this Order.

e. 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, monitoring requirements on 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.

f. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury if test results (as required in Attachment E of this Order) show that the concentration levels of methylmercury in the fish tissue are at or above 0.3 milligrams per kilogram.

g. This Order may be reopened to incorporate appropriate biosolids requirements if the State Water Resources Control Board and the Santa Ana Water Board are given the authority to implement regulations contained in 40 CFR 503.

h. This Order may be reopened, if necessary and appropriate, to specify revised waste discharge requirements based on the results of the investigation required.

2. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. By September 1, 2022, the Discharger shall notify the Executive Officer of its continued involvement with the comprehensive mercury investigation program currently being conducted by a group of Santa Ana River system dischargers. If the Discharger discontinues its involvement with this comprehensive program, the Discharger shall, within 60 days of that date, submit for the approval of the Executive Officer its plan for the annual testing of mercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the discharge point. Upon approval, the Discharger shall implement the plan.

b. **Toxicity Reduction Requirements**

i. The Discharger shall conduct chronic toxicity monitoring of discharges as specified in the MRP (Attachment E).

ii. Within 90 days of the effective date of this Order, the Discharger shall update, as necessary, its Initial Investigation Toxicity Reduction Evaluation (TRE) work plan and shall submit a copy to the Santa Ana Water Board for approval. If the Santa Ana Water Board does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833B-99/002, August 1999), or most current version, as guidance. The TRE work plan shall describe the steps the Discharger intends to follow if required by Toxicity Reduction Requirement b.iii., below. The work plan shall include at a minimum:

(a) A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of toxicity, effluent variability, and/or efficiency of the treatment system in removing toxic substances;

(b) A description of the methods to be used for investigating and maximizing in-house treatment efficiency, good housekeeping practices, and a list of chemicals used in the operation of the Facility; and,

(c) A description of the evaluation process to be used to determine if implementation of a more detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE\TIE) is necessary. If a

TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an inhouse expert or an outside contractor).

iii. **TRE Trigger:** The Discharger shall implement the TRE work plan whenever the results of chronic toxicity tests of the effluent show any combination of two or more MDEL violations or MMET (MMEL as of January 1, 2024) exceedances within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, fish kills, intermittent recurring toxicity, etc.), then the Santa Ana Water Board may require the implementation of a TRE. Routine monthly chronic toxicity monitoring shall resume during a TRE.

iv. **TRE Process:** The Discharger shall update, as necessary, its detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan that shall describe the steps the Discharger intends to follow if the implemented Initial Investigation TRE fails to identify the cause of, or to rectify, the toxicity. The Discharger shall use USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833B-99/002, August 1999), or most current version, as guidance.

v. In addition, if a TIE needs to be implemented to identify the cause(s) of toxicity, the Discharger shall use as guidance, at a minimum, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992). The TIE should be conducted on the species demonstrating the most sensitive toxicity response. If during the life of this Order the aforementioned EPA manuals are revised or updated, the revised/updated manuals may also be used as guidance. The detailed TRE/TIE work plan shall include:

(a) Further actions to investigate and identify the cause of toxicity;

(b) Actions the Discharger will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and

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

vi. The Discharger shall implement the TRE/TIE workplan if the IITRE fails to identify the cause of, or rectify, the toxicity, or if in the opinion of the Executive Officer the IITRE does not adequately address an identified toxicity problem.

vii. The Discharger shall continue to conduct the minimum effluent monitoring while the TRE and/or TIE process is taking place. Additional accelerated monitoring and TRE Work Plans are not required once a TRE is begun.

viii. The Discharger shall assure that adequate resources are available to implement the required TRE/TIE. The Santa Ana Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if routine monitoring finds there is no longer toxicity. The Santa Ana Water Board may consider the results of any TRE/TIE studies in an enforcement action.

3. Best Management Practices and Pollution Prevention

a. **Pollutant Minimization Program**

i. 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:

(a) A sample result is reported as DNQ and the effluent limitation is less than the RL; or

(b) 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 X.B.4.

ii. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Santa Ana Water Board:

(a) 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;

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

(c) 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;

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

(e) By April 1st of each year an annual status report shall be sent to the Santa Ana Water Board that includes the following:

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

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

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

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

4. Construction, Operation and Maintenance Specifications

a. The Discharger's wastewater treatment plant shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23, Division 3, Chapter 14, California Code of Regulations.

b. The Discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the Discharger will comply with the requirements of this Order.

c. The Discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment facility to conform to latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

i. Description of the treatment plant table of organization showing the number of employees, their duties and qualifications, and plant attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

iii. Description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

v. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.

vi. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

d. **Asset Management Program.** The Discharger shall develop an asset management program to cover the POTW. The Discharger shall:

i. Develop and utilize an asset management program within two years of the effective date of this Order/Permit. This program shall include a detailed inventory of critical assets; condition rating and/or likelihood of failure of said assets; rehabilitation and replacement planning, capacity assurance planning, and maintenance strategy to ensure the Discharger's system meets a desired level of service and plan for future needs and requirements; and funding source to support the planned asset maintenance, rehabilitation, and replacement activities. Critical assets may include, but are not limited to sewer lines, manholes, outfalls, pump stations, force mains, and wastewater treatment facility assets.

ii. Create and submit to the Santa Ana Water Board an Asset Management Plan (AMP) within one year of the effective date of this Order/Permit. The AMP shall be updated and re-evaluated every five years. The AMP shall include the following components: A Rehabilitation and Replacement Plan identifying and prioritizing upcoming rehabilitation and replacement projects for critical assets and outlining a proposed schedule for completion of each project; a Maintenance Plan identifying major maintenance activities, frequency performed for critical assets, and estimates of ongoing and projected costs of maintenance activities; and a Sewer Collection System Map incorporating assets from the asset management inventory. Finally, the AMP shall include estimated costs for the Rehabilitation and Replacement Plan and the Maintenance Plan. Expenses may include operational, administrative, interest, or capital expenses. The cost estimate shall include a determination of whether the planned expenditures are capital or operational and the source of funds: user or connection fees, grants, bonds, or reserves.

5. Climate Change Action Plan

Changing climate conditions may fundamentally alter the way desalination plants are designed and operated. Climate change research indicates the overarching driver of change is increased atmospheric carbon dioxide (CO_2) from human activity. The increased CO_2 emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges (Changes in Sea Level), lead to more erratic rainfall and local weather patterns (Change in Weather Patterns), trigger a gradual warming of freshwater and ocean temperatures (Changes in Water Temperature) and trigger changes to ocean water chemistry (Changes in Water pH).

The Discharger shall prepare and submit a Climate Change Action Plan (CCAP) within eighteen (18) months of the effective date of this Order. The CCAP shall identify the following:

a. Projected regional impacts on the Facilities and operations due to climate change if current trends continue.

b. Steps being taken or planned to address:

   i. Greenhouse gas emissions, directly and indirectly, attributable to the Facilities operations and effluent discharge process;

   ii. Flooding risks that may affect the operations including discharges at the Facility;

   iii. Volatile rain period impacts (both dry and wet weather);

   iv. Impacts on process design parameters due to changes caused by climate change;

   v. Impacts on the Facilities operations and effluent water quality; and

   vi. Impacts to the mitigation site(s) approved by the Santa Ana Water Board.

c. Potential need to adjust the conditions of this Order.

d. Financing needed to pay for planned actions;

e. Conformity with plans and requirements by other agencies, including but not limited to the California Air Resources Board, and the Air Pollution Control District.

f. Schedules to update the CCAP as more information on climate change and its effects become available.

g. Any other factors as appropriate.

6. Special Provisions for Publicly Owned Treatment Works (POTWs)

a. **Sewer 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)). See the Order at Standard Provision VI.A.2.b. and Attachment D, sections I.D, V.E, V.H, and I.C.

Furthermore, the Discharger is subject to the requirements of, and must comply with, State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order. The Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. While the Discharger must comply with both Order No. 2006-0003 DWQ as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order, and this

Order, the General Collection System WDR more clearly and specifically stipulates requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows. The Discharger and other governmental agencies that are discharging wastewater into the facility are required to obtain enrollment for regulation under Order No. 2006-0003-DWQ as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

b. **Pretreatment Program**

i. The Discharger shall update as necessary and implement an acceptable pretreatment program.

ii. The Discharger shall update as necessary the appropriate contractual agreements with all governmental agencies[8]. The contractual agreements shall give the Discharger the authority to implement and enforce the U.S. EPA approved pretreatment program within the sewer service areas of the treatment facility. The Discharger shall assure that any other steps necessary to provide this implementation and enforcement authority (e.g. adoption of ordinances, etc.) are taken by all governmental agencies. If a governmental agency has an U.S. EPA approved pretreatment program for any portion of the service area of the treatment facility, the Discharger's pretreatment program shall contain provisions ensuring that that governmental agency's program is implemented. In the event that any agency discharging to the Discharger’s facility fails to effectively implement its individual U.S. EPA approved pretreatment program, the Discharger shall implement and enforce its approved program within that agency's service area.

iii. The Discharger shall ensure that the pretreatment programs for all contributory agencies discharging to the Discharger’s treatment facility are implemented and enforced. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revisions place mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall submit for approval of the Santa Ana Water Board's Executive Officer, a schedule for implementation of the required actions and shall implement the approved schedule. The schedule for implementation shall be submitted within six months from the date that such mandatory actions are established. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines and other remedies by the U.S. EPA, or other appropriate parties, as provided in the CWA, as amended (33 USC 1351 et seq.). The U.S. EPA or the Santa Ana Water Board may also initiate

[8] Member agencies and sewering agencies discharging wastewater into the facility.

enforcement action against an industrial user (IU) for non-compliance with applicable standards and requirements as provided in the CWA.

iv. The Discharger shall perform the pretreatment functions as required in 40 CFR 403 including, but not limited to:

(a) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

(b) Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

(c) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);

(d) Publish a list of significant non-compliance as required by 40 CFR 403.8(f)(2)(vii); and

(e) Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

v. The following wastes shall not be introduced into the treatment works:

(a) Wastes which create a fire or explosion hazard in the treatment works;

(b) Wastes which will cause corrosive structural damage to treatment works, but, in no case, wastes with a pH lower than 5.0 unless the works are designed to accommodate such wastes;

(c) Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency;

(d) Solid or viscous wastes in amounts that would cause obstruction to the flow in sewers or otherwise interfere with the proper operation of the treatment works.

vi. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by U.S. EPA under Section 307 of the CWA or amendments thereto for any discharge to the municipal system.

vii. 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.

viii. The Discharger shall require each user not in compliance with any pretreatment standard to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the CWA or

amendments thereto. The Discharger shall forward a copy of such notice to the Santa Ana Water Board and to the U.S. EPA Regional Administrator.

7. Other Special Provisions

a. As necessary, based on the consideration of evidence regarding the implementation of the maximum benefit commitments shown in Attachment L, the Santa Ana Water Board will be asked to make a determination of whether those commitments are being satisfied. If the Santa Ana Water Board finds that the maximum benefit commitments are not being satisfied, then the Discharger shall implement a mitigation program approved by the Santa Ana Water Board for recycled water use in the Chino 1, 2 or 3 Groundwater Management Zones for the use of recycled water in excess of the limitations applicable to the Groundwater Management Zones (Sections IV.A.1.g. and IV.A.1.h., and Sections IV.C.2.b.). A proposed mitigation plan and schedule shall be submitted within 60-days of notification by the Santa Ana Water Board Executive Officer of the need to do so. The Discharger shall implement the plan and schedule upon approval by the Santa Ana Water Board.

8. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

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

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP (Attachment E) and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Santa Ana 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 minimum reporting level (ML).

B. Multiple Sample Data.

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

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

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

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

C. Average Monthly Effluent Limitation (AMEL).

If the average, or when applicable, the median for multiple sample data (see subsection G, below), of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, 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). 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.

D. Average Weekly Effluent Limitation (AWEL).

If the average, or when applicable, the median for multiple sample data (see subsection G, below), of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger may be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger may be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, 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).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger may be considered out of

compliance for that parameter for that single sample. Non-compliance for each sample may be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. 12-Month Running Average Effluent Limitation.

Compliance with the 12-month flow-weighted running average limits under Effluent Limitations and Discharge Specifications IV.A.1.g. and h. and IV.C.2.b. shall be determined by the arithmetic mean of the last twelve monthly averages.

I. TDS Increment Limit.

Compliance with Effluent Limitations and Discharge Specifications IV.A.1.g.ii. shall be based on IEUA's (RP-1, RP- 4, RP-5, and CCWRF) agency-wide flow weighted TDS water supply quality and shall be determined from TDS analysis of secondary treated wastewater. The Discharger shall provide the necessary calculations showing the overall TDS water supply quality.

J. Priority Pollutants.

The Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation.

1. Compliance determination shall be based on the reporting level selected from minimum level (ML)[9] specified in Attachment "I" of this Order, unless an alternative reporting level is approved by the Santa Ana Water Board's Executive Officer. When there is more than one ML value for a given substance, the Discharger shall select the ML value that is below the calculated effluent limitation, and use its associated analytical method, listed in Attachment "I" of this Order. If no ML value is below the effluent limitation, then the Santa Ana Water Board will select as the reporting level the lowest ML value and its associated analytical method.
2. When determining compliance with an average monthly limit and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or not detected (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

[9] Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable 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.

a. The data set shall be ranked from low to high, 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. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting level, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a pollutant minimization program (PMP)[10] the Discharger shall not be deemed out of compliance.

K. Compliance Determination.

Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e. g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.

Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL) for that chemical.

[10] 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.

ATTACHMENT A – DEFINITIONS

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

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

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

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

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

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.

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 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.

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 Santa Ana 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 Santa Ana 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 Santa Ana 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 Santa Ana 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.

Storm Water
Storm water runoff and surface runoff and drainage.

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

ATTACHMENT B – MAP

Figure 1 – IEUA Regional Sewer System and Recycled Water System Location Map

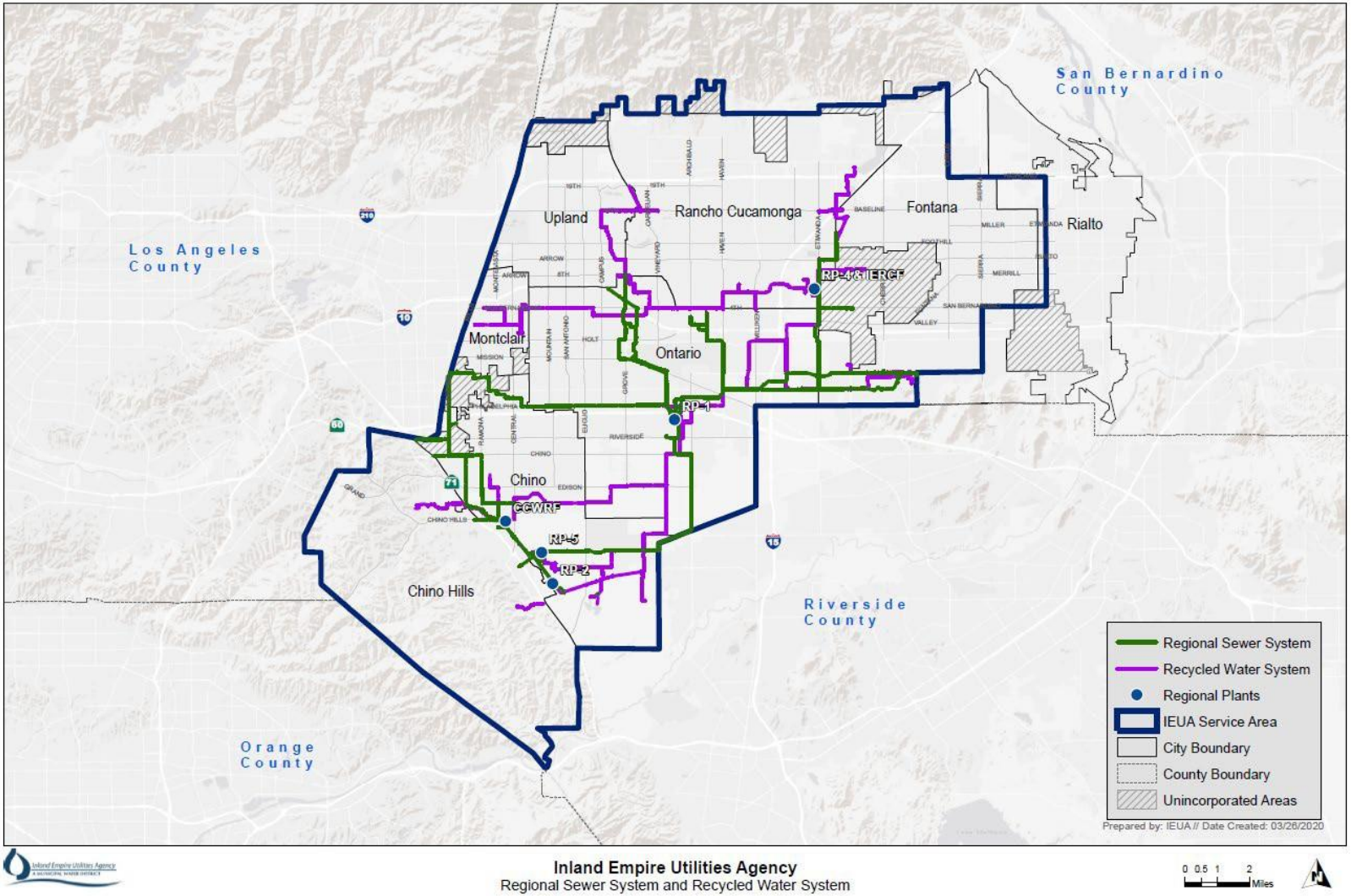


Figure 2 – Regional Water Recycling Plant No. 1 Topographic Map

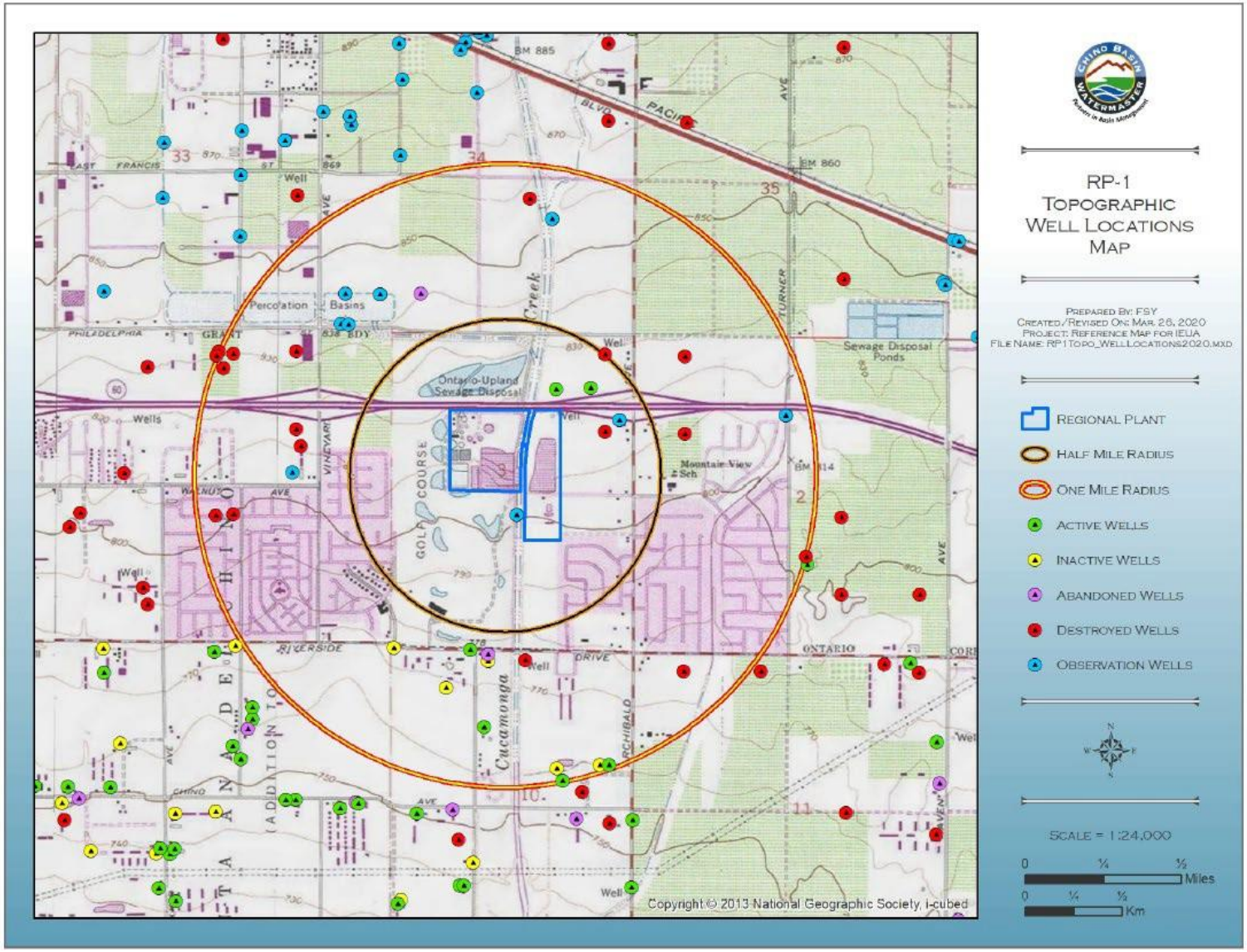


Figure 3 – Regional Water Recycling Plant No. 4 Topographic Map

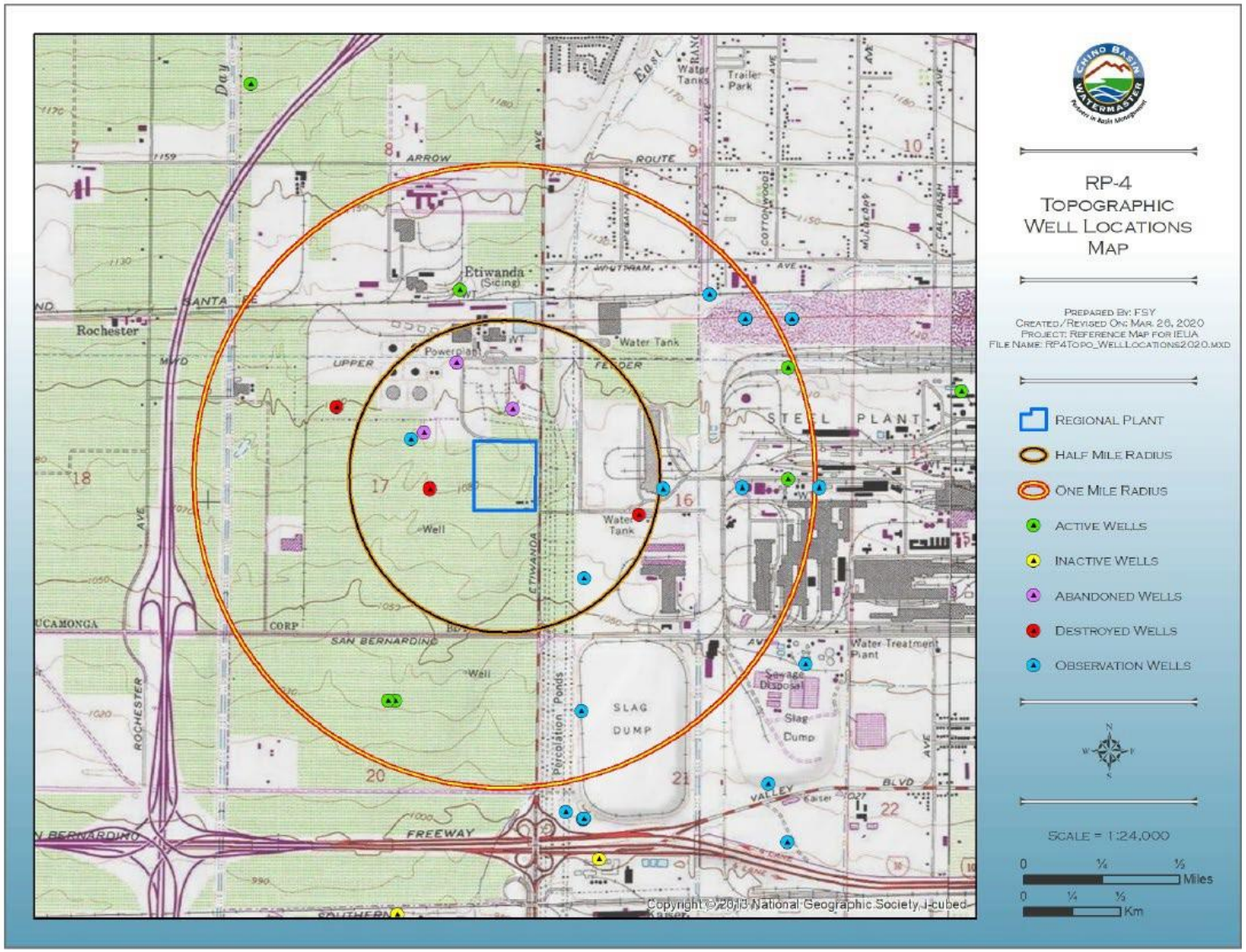


Figure 4 – Regional Water Recycling Plant No. 5 Topographic Map

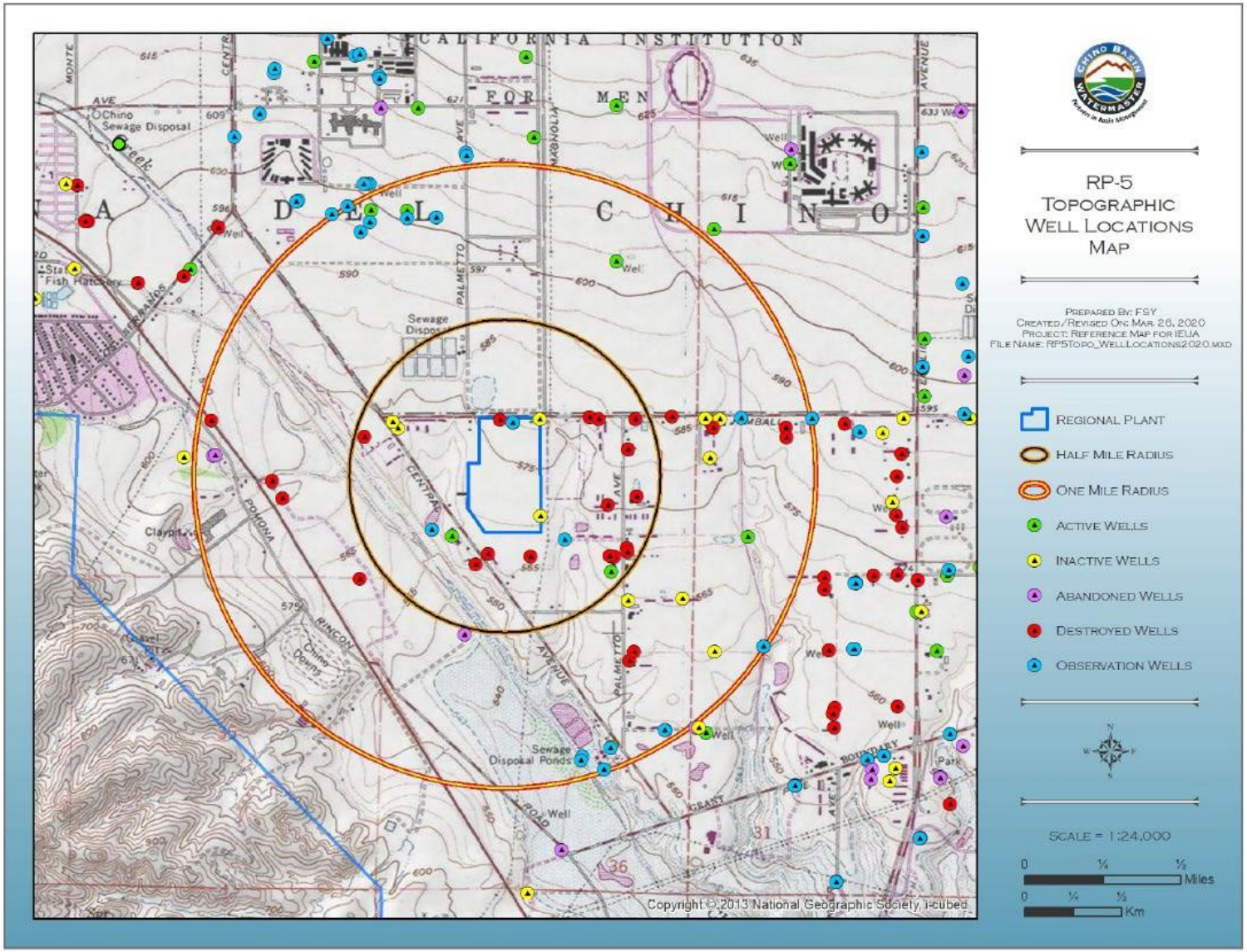
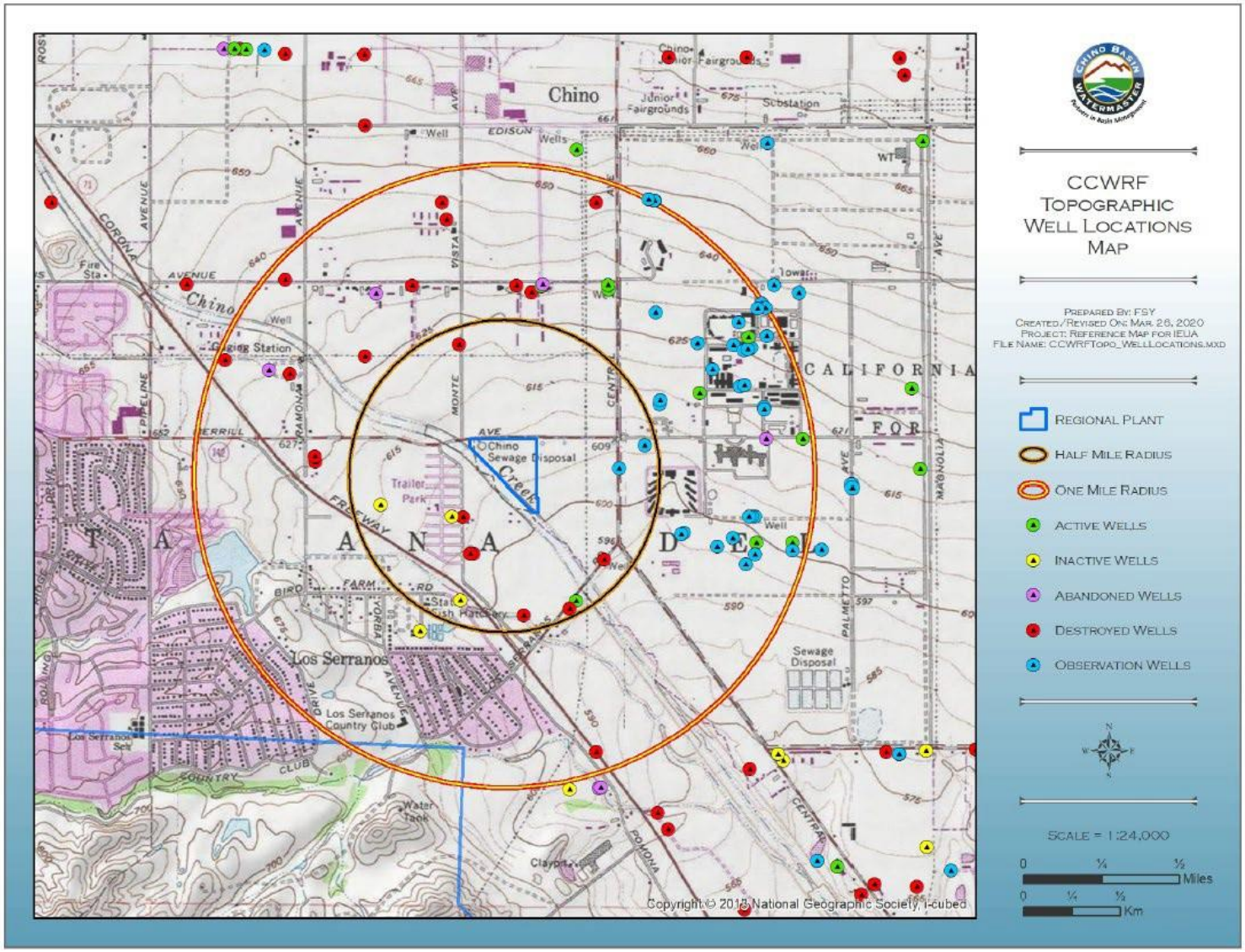


Figure 5 – Carbon Canyon Water Recycling Plant Topographic Map



ATTACHMENT C – FLOW SCHEMATIC

Figure 1 – IEUA Regional Sewer System Process Flow Schematic

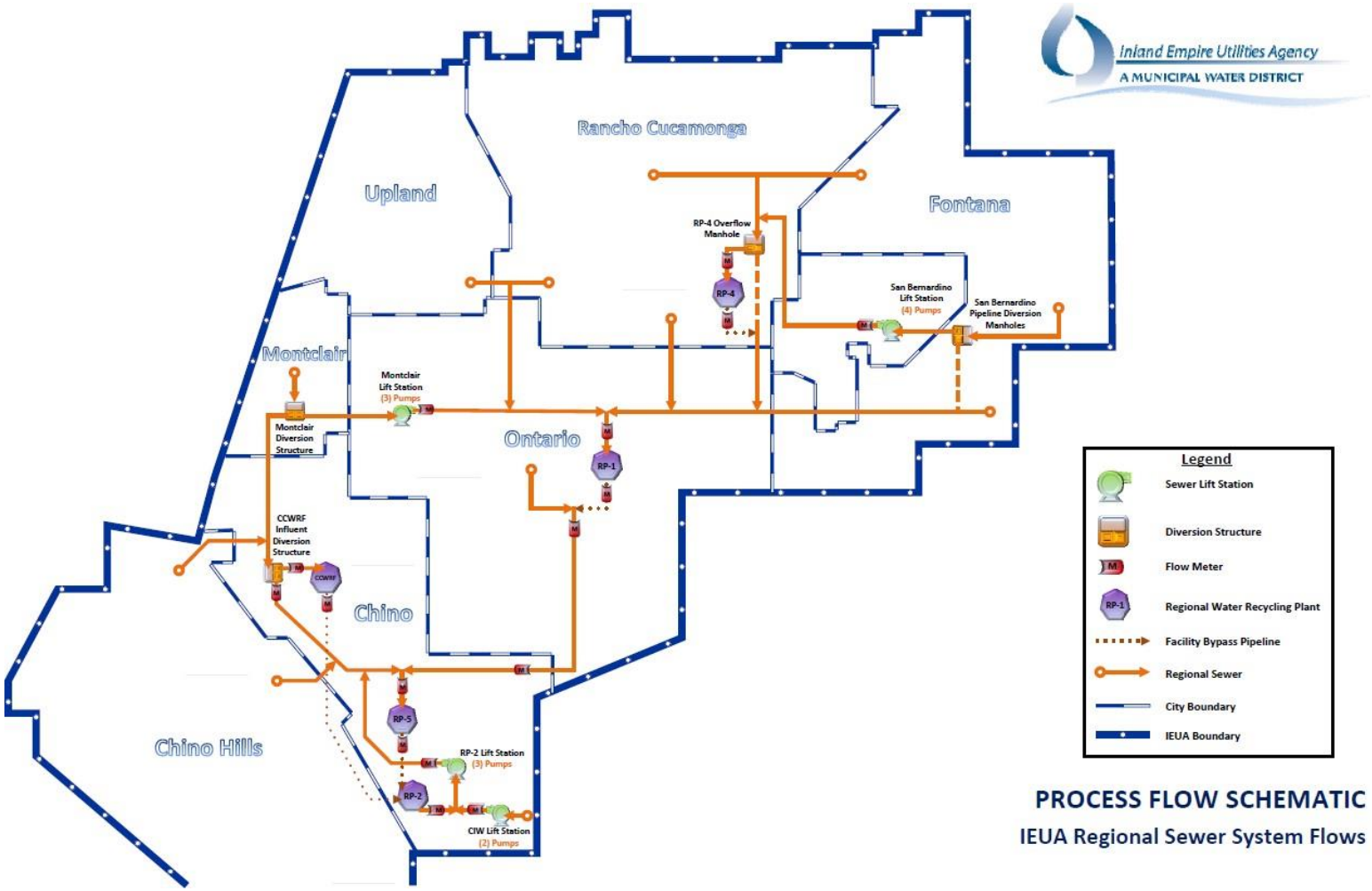


Figure 2 – IEUA Recycled Water System Process Flow Schematic

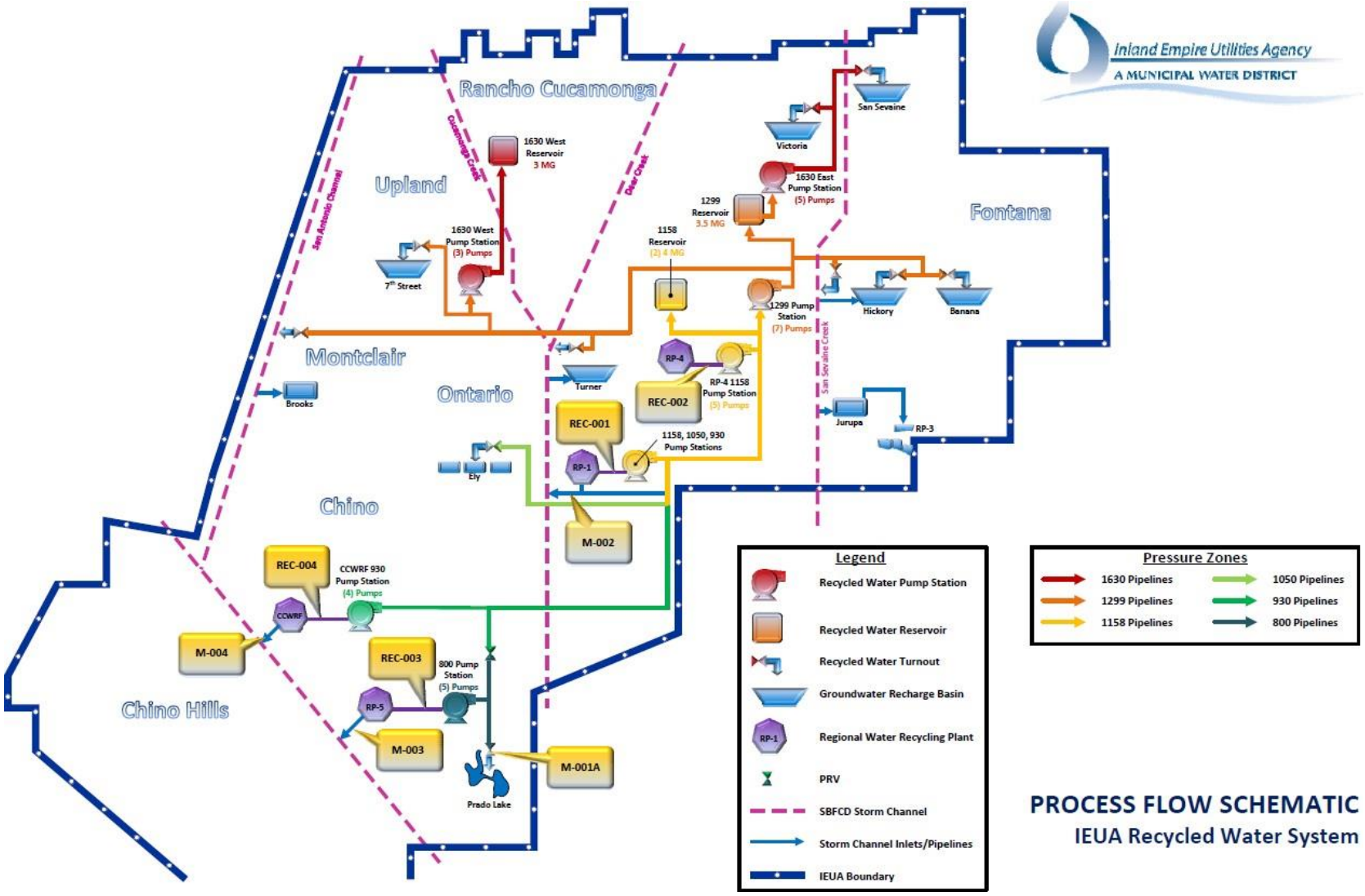


Figure 3 – Regional Water Recycling Plant No. 1 Process Flow Schematic

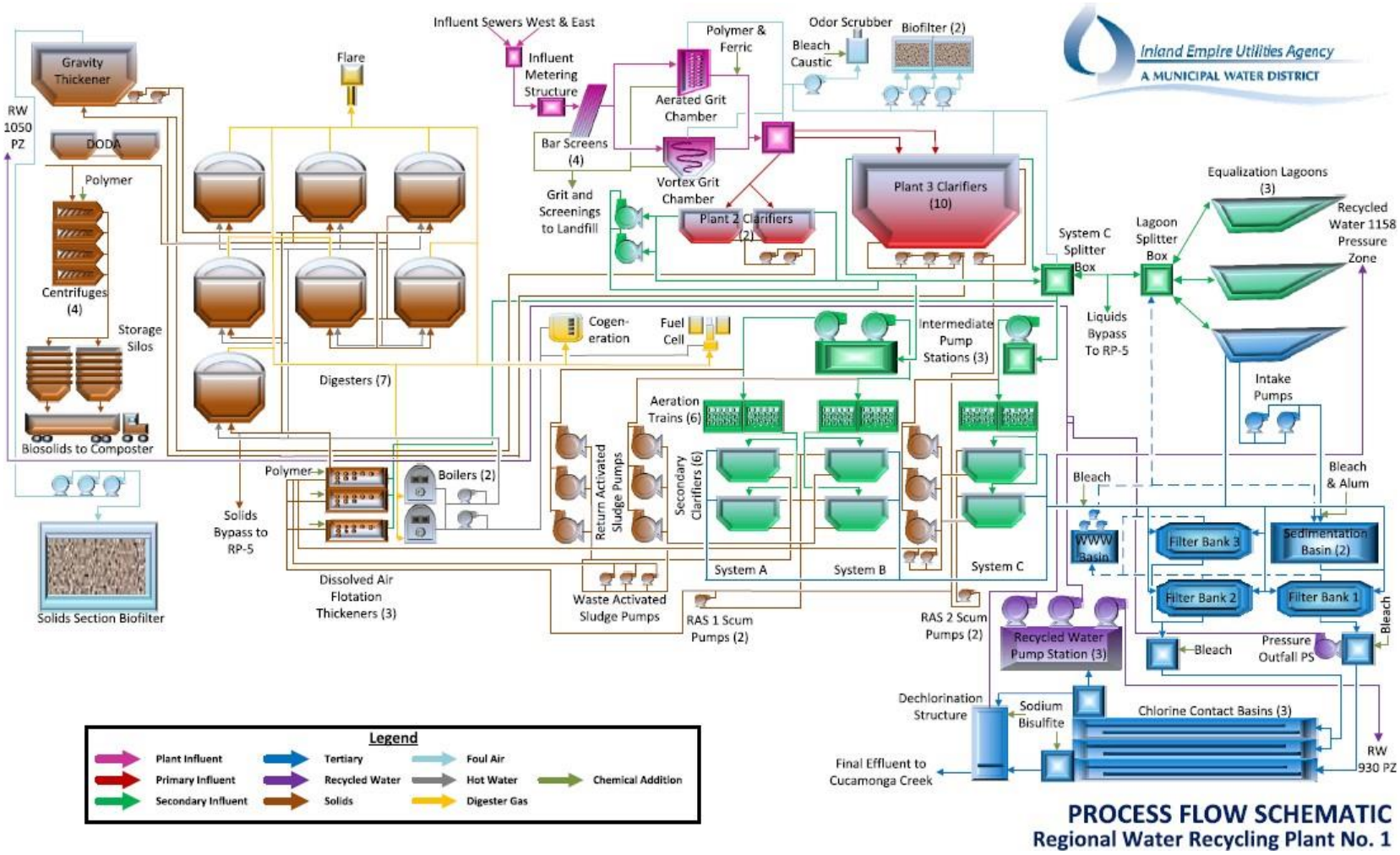


Figure 4 – Regional Water Recycling Plant No. 4 Process Flow Schematic

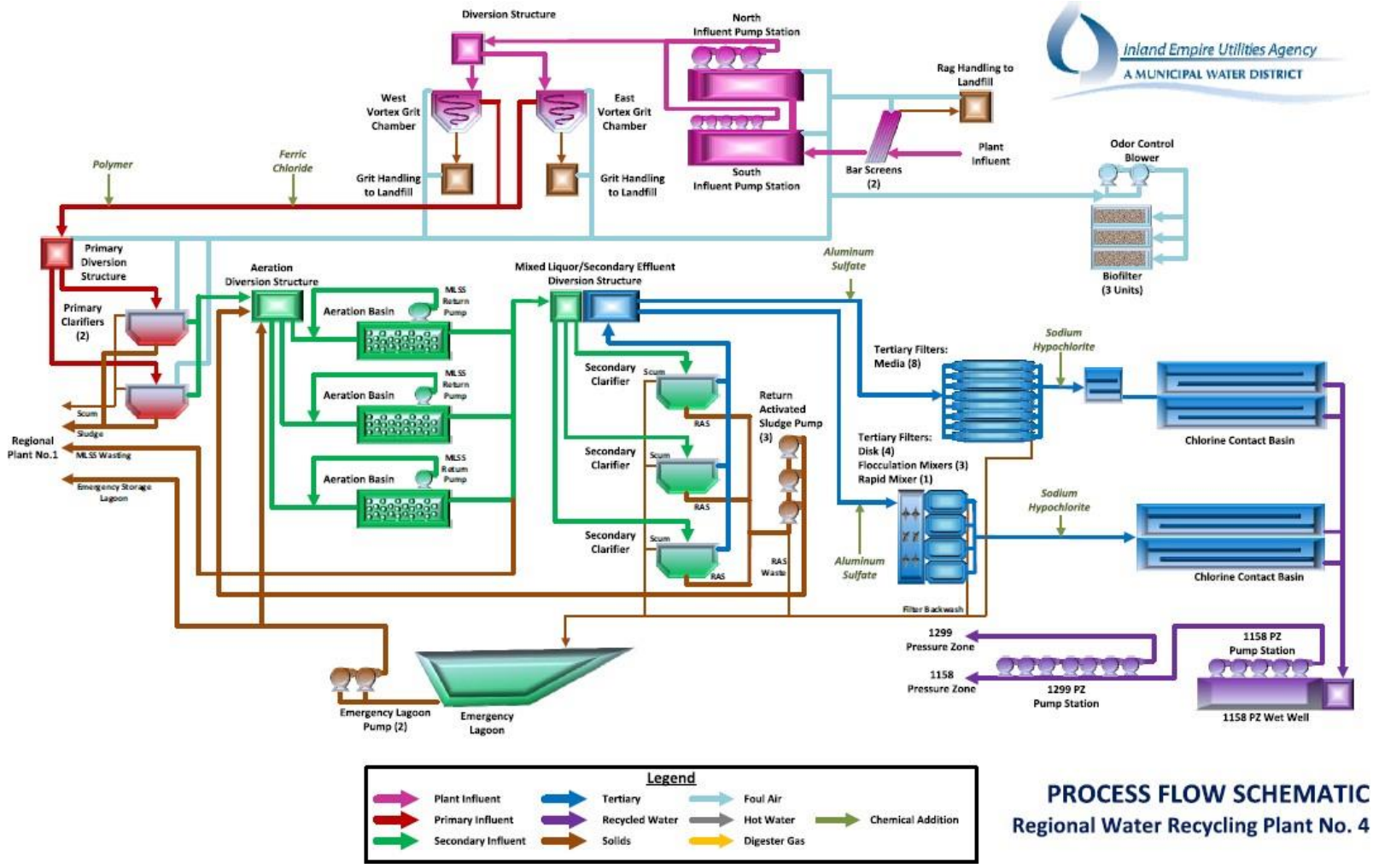


Figure 5 – Regional Water Recycling Plant No. 5 Process Flow Schematic

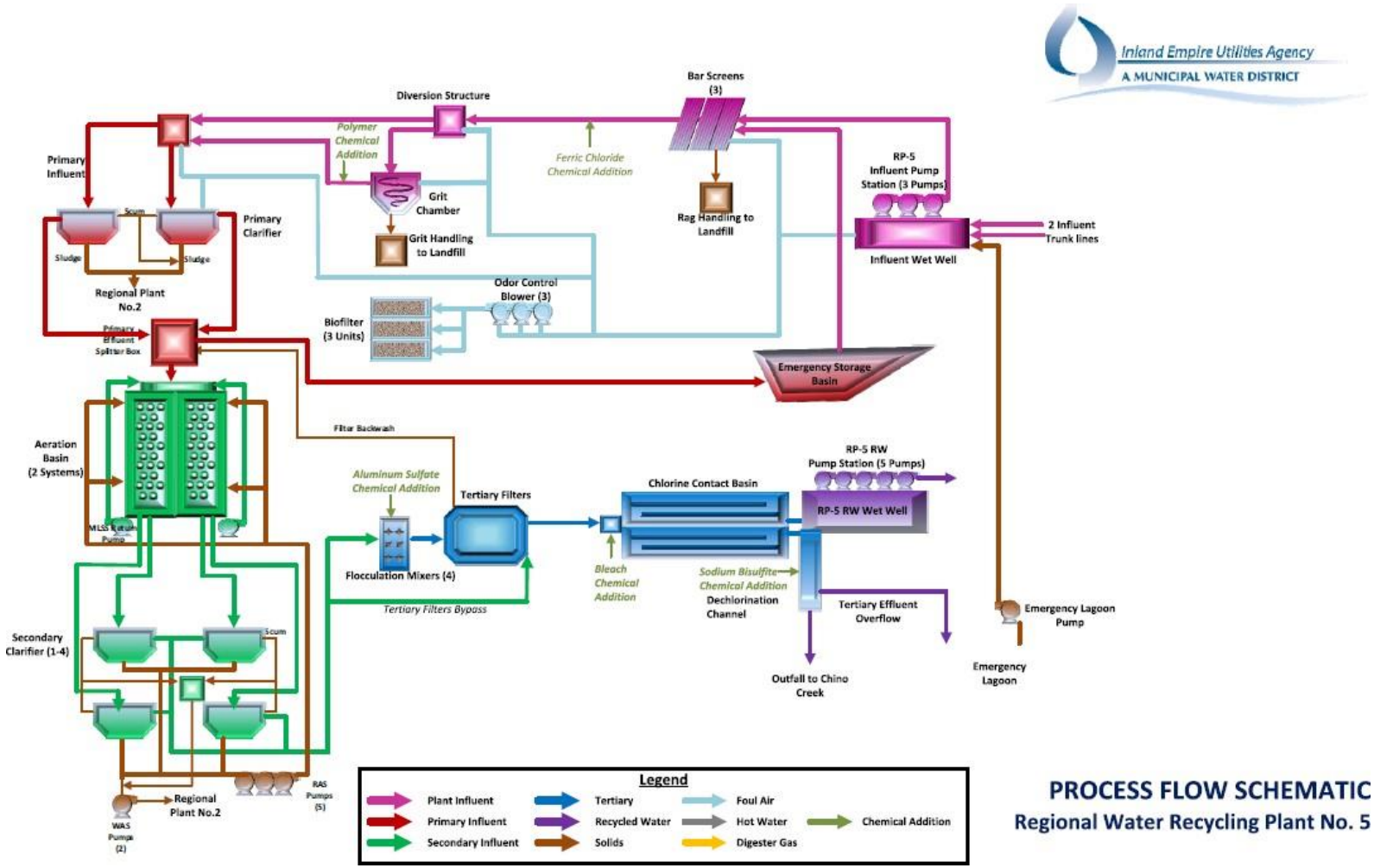


Figure 6 – Regional Water Recycling Plant No. 5 Process Flow Schematic (by 2024)

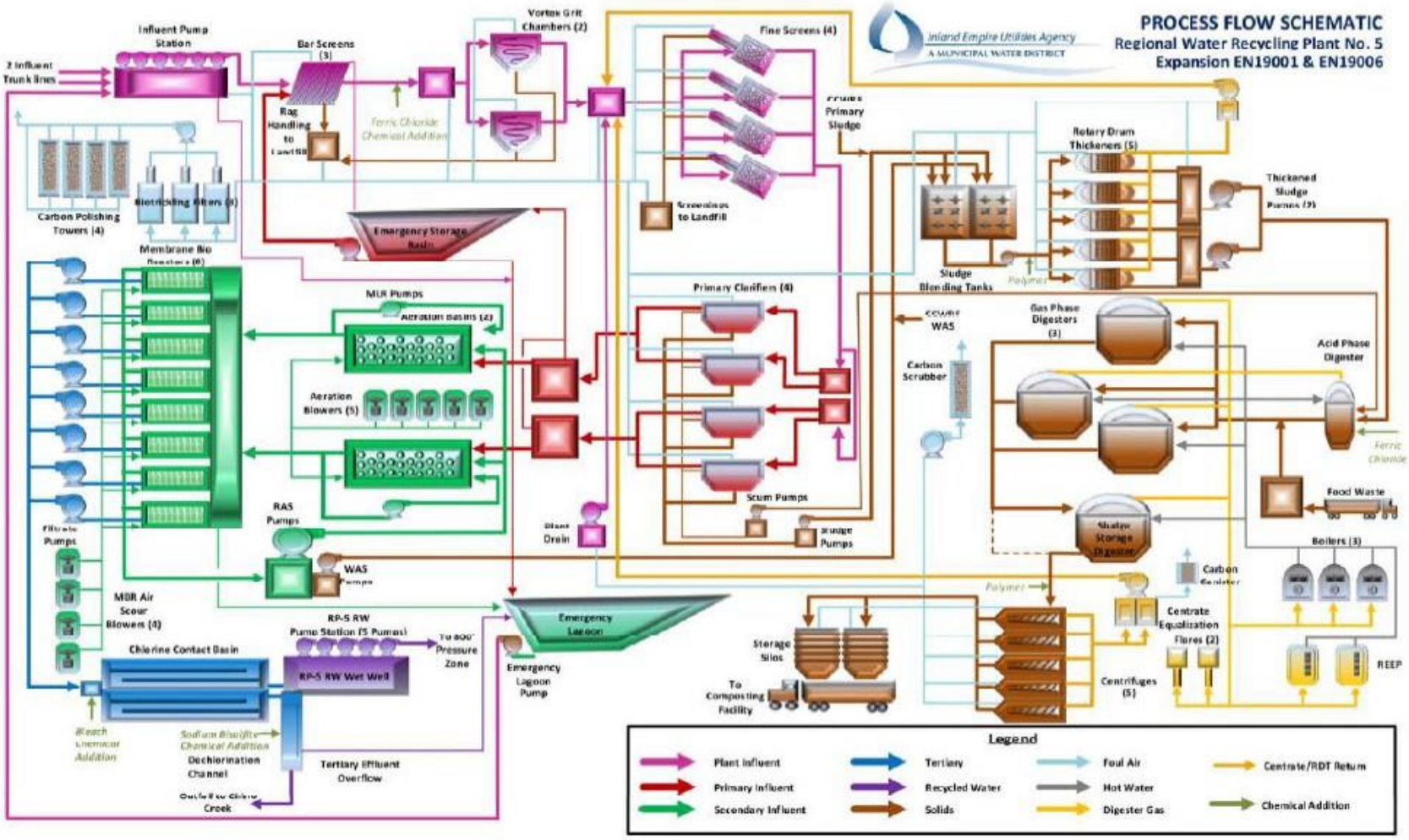
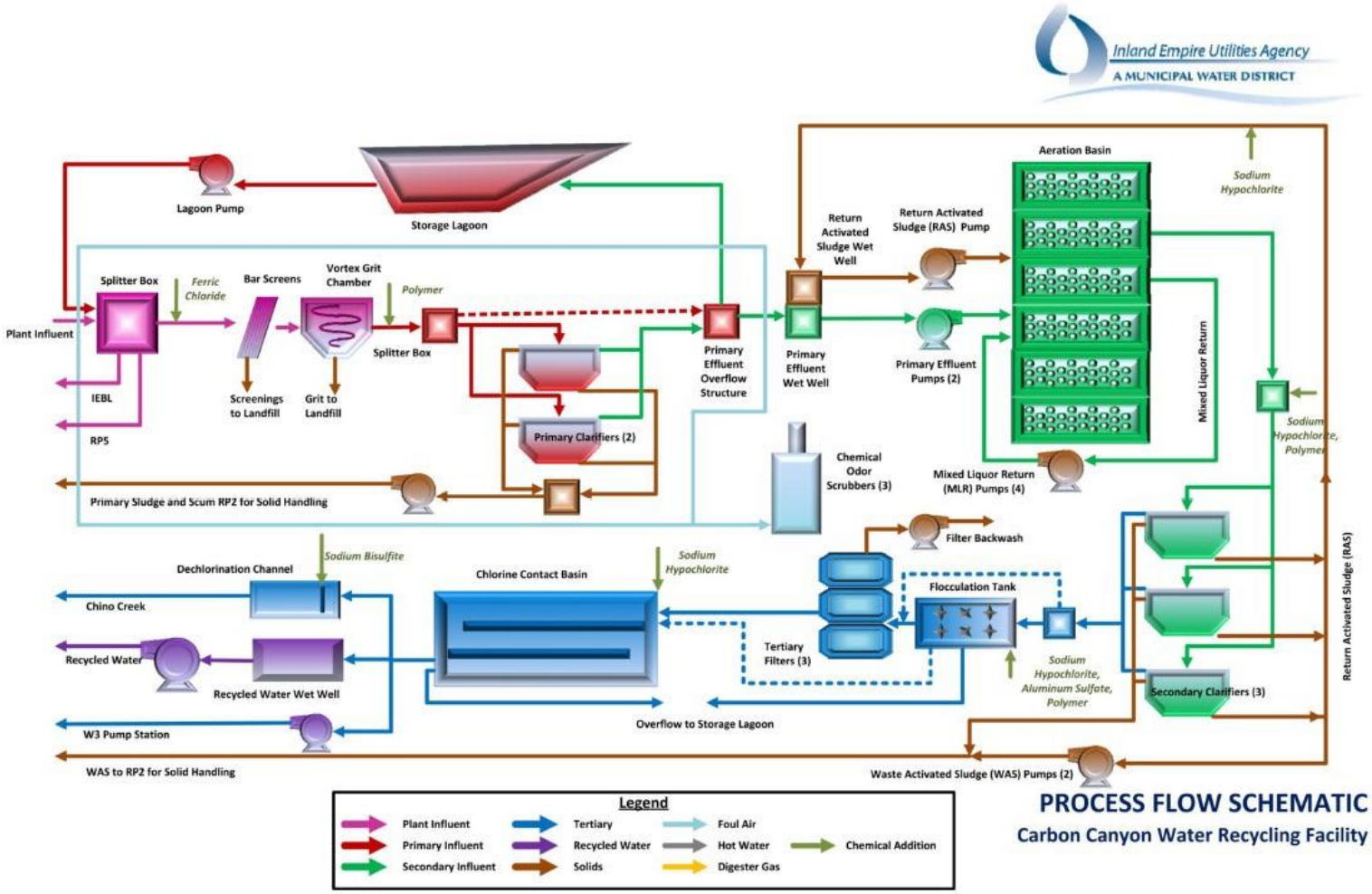


Figure 7 – Carbon Canyon Water Recycling Facility Process Flow Schematic



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

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

B. Need to Halt or Reduce Activity Not a Defense

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

C. 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).)

D. 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 include 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).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

F. Inspection and Entry

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

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

G. Bypass

1. Definitions
   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i).)
   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii).)
2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Santa Ana 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 Santa Ana Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR § 122.41(m)(4)(i)(C).)

4. The Santa Ana Water Board may approve an anticipated bypass, after considering its adverse effects, if the Santa Ana Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Santa Ana Water Board. As of December 21, 2025, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Santa Ana Water Board. As of December 21, 2025, all notices must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(m)(3)(ii).)

H. Upset

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

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

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

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

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

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring must be conducted according to test procedures approved under 40 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:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
2. The method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N 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).)

IV. STANDARD PROVISIONS – RECORDS

A. 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 Santa Ana Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi).)

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

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

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

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Santa Ana Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 CFR § 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 CFR § 122.22(a)(3).).
3. All reports required by this Order and other information requested by the Santa Ana Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
    a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));
    b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and
    c. The written authorization is submitted to the Santa Ana Water Board and State Water Board. (40 CFR § 122.22(b)(3).)
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of

Standard Provisions – Reporting V.B.3 above must be submitted to the Santa Ana Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

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

6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR § 122.41(l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Santa Ana 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 V.J and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i).)
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 Santa Ana Water Board or State Water Board. (40 CFR § 122.41(l)(4)(ii).)
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be

submitted no later than 14 days following each schedule date. (40 CFR § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The 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, 2025, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Santa Ana Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Santa Ana 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).)

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).)

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

F. Planned Changes

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

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR § 122.41(l)(1)(ii).)

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 CFR part 127. The Santa Ana 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).)

I. Other Information

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

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Santa Ana Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13268,13350, 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

CONTENTS

TABLES

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (CFR) require that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Santa Ana Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements pursuant to the authority of these federal and California laws and/or regulations.

The purpose of this MRP is to determine and ensure Discharger's compliance with effluent limitations and other requirements established in the Order, assess treatment efficiency, characterize effluents, characterize the receiving water and the effects of the discharge on the receiving water, and assess the impacts to all forms of aquatic life. This MRP also specifies requirements concerning the proper use, maintenance, and installation of monitoring equipment and methods, and the monitoring type intervals and frequency necessary to yield data that are representative of the activities and discharges regulated under this Order.

I. GENERAL MONITORING PROVISIONS

A. All sampling and sample preservation shall be in accordance with the current edition of "*Standard Methods for the Examination of Water and Wastewater*" (American Public Health Association) or 40 CFR 136 *"Guidelines Establishing Test Procedures for the Analysis of Pollutants,"* promulgated by the United States Environmental Protection Agency (U.S. EPA).

B. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 *"Guidelines Establishing Test Procedures for the Analysis of Pollutants,"* promulgated by the United States Environmental Protection Agency (U. S. EPA), unless otherwise specified in this MRP. In addition, the Santa Ana Water Board and/or U. S. EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136. For priority pollutants, the test methods must meet the lowest minimum levels (MLs) specified in Attachment H of this Order and achievable by an Environmental Laboratory Accreditation Program (ELAP) certified commercial laboratory (or laboratories); where no methods/MLs are specified in Attachment I, then monitoring is to be conducted in accordance with methods/MLs approved by the Santa Ana Water Board or the State Water Resources Control Board (State Water Board) consistent with the State Water Board's Quality Assurance (QA) Program.

C. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Water Board's Division of Drinking Water in accordance with the provision of Water Code section 13176, or conducted at a laboratory certified for such analyses by the U.S. EPA or at laboratories approved by the Santa Ana Water Board's Executive Officer.

D. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and

reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

E. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the chromium (VI) monitoring requirements.

F. For effluent and receiving water monitoring:

1. The Discharger shall require its testing laboratory to calibrate the analytical system down to the minimum level (ML)[1] specified in Attachment H for priority pollutants, unless an alternative minimum level is approved by the Santa Ana Water Board's Executive Officer. When there is more than one ML value for a given substance, the discharger shall use the ML values, and their associated analytical methods listed in Attachment H that are below the effluent limitation. For analysis of priority pollutants without effluent limitations, the Discharger shall use an ML value that is below the trigger values listed in Attachment I. If no ML value is below the effluent limitation, or the trigger value listed in Attachment I, then the lowest ML and associated analytical method shall be used. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Santa Ana Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.
2. 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 reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
    b. Sample results less than the reported ML, but greater than or equal to the laboratory's current Method Detection Limit (MDL)[2], shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.
    c. Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

[1] Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable 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.

[2] MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analytical concentration is greater than zero, as defined in 40 CFR 136, Appendix B.

3. The Discharger shall submit to the Santa Ana Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment G – Priority Pollutant Lists. The Discharger shall report with each sample result:

   a. The minimum level achieved by the testing laboratory; and

   b. The laboratory's current MDL, as determined by the procedure found in 40 CFR 136.

G. For receiving water monitoring and for those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136. In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[3] is below the minimum level value specified in Attachment G and the Discharger cannot achieve an MDL value for that pollutant below the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

H. All analytical data shall be reported with identification of practical quantitation levels and with MDLs, as determined by the procedure found in 40 CFR 136.

I. The Discharger shall have, and implement, an acceptable written quality assurance (QA) plan for laboratory analyses. The quality control measures (method blank, blank spike, matrix spike and duplicate), when required, shall be performed and at a frequency specified by the approved reference test method. Where no method or regulatory criteria exists, at least one method blank, blank spike and matrix spike will be performed per batch of 10 samples or less. Spike exceptions would be for methods or analytes for which no spiking solutions are available, such as total suspended solids, total dissolved solids, total volatile solids, total solids, pH, color, odor, temperature, dissolved oxygen, or turbidity. When requested by the Santa Ana Water Board or U.S. EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study.

J. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Santa Ana Water Board by letter when compliance with the time schedule has been achieved.

K. The Discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years (this retention period supersedes the retention period specified in Section IV.A. of Attachment D) from the date of the sample, report, or application. This period of retention shall be extended during the

[3] See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.

course of any unresolved litigation regarding this discharge or by the request of the Santa Ana Water Board at any time. Records of monitoring information shall include:

1. The information listed in Attachment D- IV Standard Provisions – Records, subparagraph B. of this Order;
2. The laboratory which performed the analyses;
3. The date(s) analyses were performed;
4. The individual(s) who performed the analyses;
5. The modification(s) to analytical techniques or methods used;
6. All sampling and analytical results, including:
7. All monitoring equipment calibration and maintenance records;
8. All original strip charts from continuous monitoring devices;
9. All data used to complete the application for this Order; and
10. Copies of all reports required by this Order.
11. Electronic data and information generated by the Supervisory Control and Data Acquisition (SCADA) System.

L. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

M. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24-hour period, the Discharger shall obtain a representative grab sample each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the Discharger shall specify the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

N. Monitoring and reporting shall be in accordance with the following:

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The monitoring and reporting of influent, effluent, and sludge shall be done more frequently as necessary to maintain compliance with this Order and/or as specified in this Order.
3. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report (DMR) specified by the Santa Ana Water Board’s Executive Officer.
4. A "grab" sample is defined as any individual sample collected in less than 15 minutes.

5. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.
6. Daily samples shall be collected on each day of the week.
7. Monthly samples shall be collected on any representative day of each month.
8. Quarterly samples: A representative grab sample shall be taken on any representative day of January, April, July, and October.
9. Semi-annual samples shall be collected in January and July.
10. Annual samples shall be collected in accordance with the following schedule:

Table E-1. Monitoring Station Locations

Year	Annual Samples
2022	July
2023	October
2024	January
2025	April
2026	July
2027	October
2028	January
2029	April

O. Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Board's Division of Drinking Water, in accordance with the provision of Water Code section 13176 and must include quality assurance/quality control data with their reports.

P. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board at the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

II. MONITORING LOCATIONS

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

Table E-2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude	Longitude
Influent Monitoring Locations				
---	M-INF 1A	RP-1 influent line, before headworks	34.0300°	-117.6019°
---	M-INF 1B	RP-4 influent line, before headworks	34.0858°	-117.5244°
---	M-INF 3A	RP-5 influent upstream of any in-plant return flows (theoretical point of combined M-INFB and M-INFD flows)	33.9678°	-117.6744°
---	M-INF 3B	RP-5 Influent Pump Station	33.9606°	-117.6711°
---	M-INF 3C	RP-2 Recycle Flow	33.9581°	-117.6731°
---	M-INF 3D	RP-2 Lift Station	33.9522°	-117.6667°
---	M-INF 4	Influent sampling at CCWRF	33.9822°	-117.6967°
Effluent Monitoring Locations				
DP-001	M-001A	RP-1/CCWRF/RP-5 effluent outfall to Prado Park Lake	33.9442°	-117.6428°
DP-001	M-001B	At the RP-1 splitter box	34.0247°	-117.5992°
DP-002	M-002	RP-1 and RP-4 effluent outfall to Reach 1 of Cucamonga Creek	34.0253°	-117.5989°
DP-003	M-003	RP-5 effluent to Reach 1B of Chino Creek	33.9622°	-117.6781°
DP-004	M-004	CCWRF effluent to Reach 2 of Chino Creek	33.9797°	-117.6942°
Recycled Water Monitoring Locations				
DP-005	REC-001	RP-1 effluent to recycled water use area, same as M-001B	34.0247°	-117.5992°
DP-006	REC-002	RP-4 effluent to recycled water use area	34.0831°	-117.5264°
DP-007	REC-003	RP-5 effluent to recycled water use area, same as M-003	33.9622°	-117.6781°
DP-008	REC-004	CCWRF effluent to recycled water use area, same as M-004	33.9797°	-117.6942°
Receiving Water Monitoring Locations				
---	R-002U	Cucamonga Creek 100 feet upstream of DP-002	34.0247°	-117.5994°
---	R-002D	Cucamonga Creek 500 feet downstream of DP-002 after mixing	34.0119°	-117.5997°
---	R-003U	Chino Creek 500 feet downstream of DP-004 and upstream of DP-003	33.9794°	-117.6942°

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude	Longitude
---	R-003D	Chino Creek 4,000 feet downstream of DP-003 (by the RP-2 site)	33.9539°	-117.6706°
---	R-004U	Chino Creek 100 feet upstream of DP-004	33.9797°	-117.6944°
---	R-004D	Chino Creek 500 feet downstream of DP-004 (Same as R-003U)	33.9794°	-117.6942°
Storm Water Runoff Monitoring Locations				
---	STORM-001	Storm water runoff from RP-1, west	34.0267°	-117.5997°
---	STORM-002	Storm water runoff from RP-1, east	34.0244°	-117.5994°
---	STORM-003	Storm water runoff from RP-2	33.9528°	-117.6694°

[1] RP-5 influent consists of RP-5 Influent Pump Station flows and RP-2 Lift Station flows, which include RP2 Recycle Flow and Prado/Butterfield Ranch flows. Therefore, values reported for M-INF 3A are flow-weighted values based on flows from RP-5 Pump Station and RP-2 Lift Station.

The North latitude and West longitude information in Table E-2 are approximate for administrative purposes.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and 4

1. Sampling stations shall be established for the points of inflow to the treatment plant. The sampling station(s) shall be located upstream of any in-plant return flows and where representative sample(s) of the influent of the treatment plant can be obtained.
2. The Discharger shall sample and monitor influent to the Facilities at the influent Monitoring Locations M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and 4 as follows.

Table E-3. Influent Monitoring at M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and 4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Totalizer/Recorder	Continuous	---
Specific Conductance	µmhos/cm	Recorder	Continuous	---
pH	pH units	Recorder	Continuous	---
Total Organic Carbon (TOC)	mg/L	Composite	Weekly	See I.B. and I.C., above
Biochemical Oxygen Demand, 5-day @ 20°C (BOD_5)[1]	mg/L	Composite	Weekly	See I.B. and I.C., above
Total Suspended Solids (TSS)	mg/L	Composite	Weekly	See I.B. and I.C., above
Total Nitrogen (TN)	mg/L	Composite	Weekly	See I.B. and I.C., above

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Inorganic Nitrogen (TIN)	mg/L	Composite	Weekly	See I.B. and I.C., above
Ammonia-Nitrogen	mg/L	Grab	Weekly	See I.B. and I.C., above
Total Dissolved Solids (TDS)	mg/L	Composite	Weekly	See I.B. and I.C., above
Boron	mg/L	Composite	Annual	See I.B. and I.C., above
Chloride	mg/L	Composite	Annual	See I.B. and I.C., above
Fluoride	mg/L	Composite	Annual	See I.B. and I.C., above
Sodium	mg/L	Composite	Annual	See I.B. and I.C., above
Sulfate	mg/L	Composite	Annual	See I.B. and I.C., above
Total Hardness	mg/L	Composite	Quarterly	See I.B. and I.C., above
Arsenic	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Cadmium	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Copper	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Chromium (VI)	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Lead	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Mercury	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Nickel	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Selenium	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Silver	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Zinc	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Cyanide (Free)[2]	µg/L	Grab	Quarterly	See I.B. through 1.F., above
Bis (2-ethylhexyl) Phthalate	µg/L	Composite	Quarterly	See I.B. through 1.F., above
Pentachlorophenol	µg/L	Grab	Quarterly	See I.B. through 1.F., above
2,3,7,8-TCDD (Dioxin)[3]	µg/L	Composite	Monthly	See I.B. through 1.F., above, EPA Method 1613B for all 17 CDDs/CDFs, RL 1 pg/L

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Per- and Poly-fluoroalkyl Substances (PFAS)	ng/L	Grab/Composite[4]	Quarterly	See I.B. through 1.F., above[5]
Remaining Volatile Organic Portion of Priority Pollutants (See Attachment G)	µg/L	Grab	Annually	See I.B. and I.F., above
Remaining Priority Pollutants (See Attachment G)	µg/L	Composite	Annually	See I.B. and I.F., above

1 BOD_5 is calculated based on a BOD_5/TOC correlation approved by the Santa Ana Water Board.
2 Free cyanide is measured as aquatic free cyanide (ASTM Method D7237) without sodium hydroxide (NaOH) preservation.
3 Applies at Monitoring Locations M-INF 3B and 3D and annually for other influent monitoring points. The 2,3,7,8-TCDD (TEQs) concentration is the sum of the TEQ concentrations of the 17 CDDs/CDFs detected and calculated by using the 2005 WHO TEFs.
4 Grab or 24-hour composite sample composed of several grab samples that are to be composited at the analytical laboratory (if cross contamination from automatic sampler is suspected).
5 Analytical method to be used is the Department of Defense (DOD) Quality System Manual (QSM), version 5.1 or later, for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids (ML of 5 ng/L to 8 ng/L).

3. The Discharger is required to conduct monthly monitoring for 2,3,7,8-TCDD (TEQs) at M-INF 3B and 3D for one year. After one year (12 consecutive monthly sampling events) the monitoring frequency for 2,3,7,8-TCDD (TEQs) shall change to quarterly. The reported 2,3,7,8-TCDD concentration shall be the sum of the dioxin toxicity equivalence (TEQ) concentrations of the 17 chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs) detected and calculated with the use of the 2005 World Health Organization (WHO) dioxin toxicity equivalence factors (TEFs). For 2,3,7,8-TCDD monitoring, the Discharger shall include the laboratory test results sheets for each analysis with the corresponding self-monitoring report (SMR) submittal, as an attachment, and the laboratory sheet shall include any detection between the MDL and the ML (DNQ). Also, the Discharger shall notify the Santa Ana Water Board's staff, through email transmittal, regarding the re-extraction and/or retesting of samples and the reason for it. This notification shall be done within 5 days of ordering the retest of samples and the retest laboratory sheets and pertinent QA/QC documentation shall be submitted as an attachment with the next SMR submittal.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations M-001A through M-004

1. The Discharger shall monitor tertiary treated effluent for DP-001 through DP-004 at Monitoring Locations M-001A, M-002, M-003, and M-004 as follows:

Table E-4.Tertiary Effluent Monitoring at M-001A, M-002, M-003, and M-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Recorder/ Totalizer	Continuous	---
Specific Conductance	µmhos/cm	Recorder	Continuous	---
pH	pH units	Recorder	Continuous	---
Turbidity[1]	NTU	Recorder	Continuous	---
CT[2]	mg/L-min	Recorder	Continuous[3]	---
Total Chlorine Residual	mg/L	Recorder	Continuous	---
TOC	mg/L	Composite	Daily	See I.B., above
Coliform Organisms[4,5]	MPN/100 ml	Grab	Daily	See I.B., above
TSS	mg/L	Composite	Daily	See I.B., above
BOD_5[6]	mg/L	Composite	Daily	See I.B., above
Ammonia Nitrogen	mg/L	Grab	Weekly	See I.B., above
Temperature	ºC	Grab	Weekly	---
TDS	mg/L	Composite	Monthly	See I.B., above
Total Hardness	mg/L	Composite	Monthly	See I.B., above
TN	mg/L	Composite	Monthly	See I.B., above
TIN	mg/L	Composite	Monthly	See I.B., above
Chronic Toxicity	Pass/Fail; % Effect	Composite	Monthly	See section I.C., above, and section V., below
Cadmium, Total Recoverable	µg/L	Composite	Monthly[7]	See I.B. through I.F., above
Copper, Total Recoverable	µg/L	Composite	Monthly/Quarterly[8]	See I.B. through I.F., above
Lead, Total Recoverable	µg/L	Composite	Monthly/Quarterly[8]	See I.B. through I.F., above
Zinc, Total Recoverable	µg/L	Composite	Monthly[7]	See I.B. through I.F., above
Bis (2-ethylhexyl) Phthalate	µg/L	Composite	Monthly[7]	See I.B. through I.F., above
Pentachlorophenol	µg/L	Grab	Monthly[9]	See I.B. through I.F., above
Chlorodibromomethane	µg/L	Grab	Monthly/Quarterly[10]	See I.B. through I.F., above
Dichlorobromomethane	µg/L	Grab	Monthly/Quarterly[10]	See I.B. through I.F., above
2,3,7,8-TCDD (Dioxin)	µg/L	Composite	Monthly/Quarterly/ Annually[11]	See I.B. through I.F., above, EPA Method 1613B for all 17 CDDs/CDFs, RL 1 pg/L
Arsenic, Total Recoverable	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chromium (VI) or Total Chromium[13]	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above
Mercury, Total Recoverable	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above
Nickel, Total Recoverable	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above
Selenium, Total Recoverable	µg/L	Composite	Monthly[7]	See I.B. through I.F., above
Silver, Total Recoverable	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above
Cyanide, Free[14]	µg/L	Grab	Quarterly[12]	See I.B. through I.F., above
Aluminum	mg/L	Composite	Quarterly	See I.B. through I.F., above
Antimony	µg/L	Composite	Quarterly[12]	See I.B. through I.F., above
Barium	µg/L	Composite	Quarterly	See I.B., above
Cobalt	µg/L	Composite	Quarterly	See I.B., above
Bicarbonate	mg/L	Composite	Annually	See I.B., above
Boron	mg/L	Composite	Annually	See I.B., above
Calcium	mg/L	Composite	Annually	See I.B., above
Carbonate	mg/L	Composite	Annually	See I.B., above
Chloride	mg/L	Composite	Annually	See I.B., above
Fluoride	mg/L	Composite	Annually	See I.B., above
Magnesium	mg/L	Composite	Annually	See I.B., above
Sodium	mg/L	Composite	Annually	See I.B., above
Sulfate	mg/L	Composite	Annually	See I.B., above
Per- and Poly-fluoroalkyl Substances (PFAS)	ng/L	Grab/ Composite[15]	Quarterly	See I.B., above[16]
Carbon Tetrachloride	µg/L	Grab	Monthly[7]	See I.B., above
1,2,3-Trichloropropane	ng/L	Grab	Monthly/Quarterly[17]	See I.B., above
Remaining Volatile Organic Portion of Priority Pollutants (See Attachment G)	µg/L	Grab	Annually[18]	See I.B. through I.F., above
Remaining Priority Pollutants (See Attachment G)	µg/L	Composite	Annually[18]	See I.B. through I.F., above
Remaining Title 22's MCL List Contaminants[19]	µg/L	Composite/Grab	Annually[18]	See I.B. and I.F., above

[1] Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly.

[2] CT is the product of total chlorine residual and modal contact time measured at the same point (at the end of each CCB).

[3] The CT and modal contact time shall be continuously calculated and recorded. The minimum daily value shall be reported monthly. Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hr period.

[4] Samples for total coliform bacteria shall be collected daily. Samples shall be taken from the disinfected effluent.

[5] Monitoring Location REC-003 is the coliform monitoring location for DP-001 and M-001B and REC-002 are the coliform monitoring locations for DP-002.

[6] BOD_5 is calculated daily based on a BOD_5/TOC correlation approved by the Santa Ana Water Board.

[7] The monitoring frequency shall be monthly at Monitoring Location M-002 only.

[8] The monitoring frequency shall be monthly at Monitoring Location M-002, M-003, and M-004 and quarterly at Monitoring Locations M-001A.

[9] The monitoring frequency shall be monthly at Monitoring Location M-004 only.

[10] The monitoring frequency shall be monthly at Monitoring Location M-004 and quarterly at Monitoring Locations M-001A, M-002, and M-003.

[11] The monitoring frequency shall be monthly at Monitoring Locations M-001A and M-003 and annually at Monitoring Location M-002 and M-004. The 2,3,7,8-TCDD (TEQs) concentration is the sum of TEQ concentrations of the 17 CDDs/CDFs detected and calculated by using the 2005 WHO TEFs.

[12] The monitoring frequency for those priority pollutants that are detected during the required quarterly monitoring at a concentration greater than the concentration specified for that pollutant in Attachment I shall be accelerated to monthly. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Santa Ana Water Board's Executive Officer or designee.

[13] If Total Chromium test result is greater than 11 µg/L, the following sample shall be tested for Chromium VI, until directed otherwise

[14] Free cyanide is measured as aquatic free cyanide (ASTM Method D7237) without NaOH preservation.

[15] Grab or 24-hour composite sample composed of several grab samples that are to be composited at the analytical laboratory (if cross contamination from automatic sampler is suspected).

[16] Analytical method to be used is the Department of Defense (DOD) Quality System Manual (QSM), version 5.1 or later, for LC/MS/MS analysis of Per- and Polyfluorinated Alkyl Acids (ML of 5 ng/L to 8 ng/L).

[17] ML of 5 ng/L. Also, the monitoring frequency shall be monthly for the first year and quarterly thereafter for M-001A, M-003 and M-004 and monthly for M-002.

[18] The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than the concentration specified for that pollutant in Attachment I or in the Title 22's MCL Contaminants List shall be accelerated to quarterly for one year. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Santa Ana Water Board's Executive Officer or designee.

[19] To be sampled at M-001A (same as M-003), M-002, M-003, and M-004 and analyzed as if recycled water for indirect potable reuse.

2. The Discharger shall monitor tertiary treated effluent at DP-002 at Monitoring Location M-001B as follows:

Table E-5. Effluent Monitoring at M-001B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Recorder/Totalizer	Continuous	---
Turbidity[1]	NTU	Recorder	Continuous	---
Total Chlorine Residual	mg/L	Recorder	Continuous	---
CT[2]	mg-minutes/L	Calculated	Continuous[3]	
Coliform Organisms	MPN/100 ml	Grab	Daily	See I.B., above

1 Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly.

2 CT is the product of total chlorine residual and modal contact time measured at the same point and will be calculated for each CCB.

3 The CT and modal contact time shall be continuously calculated and recorded at each CCB. The minimum daily value shall be reported monthly. Modal contact time and CT shall be calculated based on the minimum 1-hour average value in a 24-hr period.

3. For M-004, the Discharger is required to conduct quarterly monitoring for 2,3,7,8-TCDD (TEQs) and after one year (four consecutive quarterly sampling events) the Discharger may reduce the frequency of monitoring for 2,3,7,8-TCDD (TEQs) from quarterly to semi-annual upon approval by the Santa Ana Water Board's Executive Officer or designee. The reported 2,3,7,8-TCDD concentration shall be the sum of the dioxin toxicity equivalence (TEQ) concentrations of the 17 chlorinated dibenzo-p-dioxins (CDDs) and chlorinated dibenzofurans (CDFs) detected and calculated with the use of the 2005 World Health Organization (WHO) dioxin toxicity equivalence factors (TEFs). For 2,3,7,8-TCDD monitoring, the Discharger shall include the laboratory test results sheets for each analysis with the corresponding self-monitoring report (SMR) submittal, as an attachment, and the laboratory sheet shall include any detection between the MDL and the ML (DNQ). Also, the Discharger shall notify the Santa Ana Water Board's staff, through email transmittal, regarding the re-extraction and/or retesting of samples and the reason for it. This notification shall be done within 5 days of ordering the retest of samples and the retest laboratory sheets and pertinent QA/QC documentation shall be submitted as an attachment with the next SMR submittal.

B. Secondary Effluent Monitoring at Monitoring Locations M-002, M-003, and M-004 with 20:1 Dilution

1. The Discharger shall monitor secondary treated effluent at M-002, M-003, and M-004 when 20:1 dilution is provided by the receiving surface water at the time of the discharge, as follows.

Table E-6. Secondary Effluent Monitoring at M-002, M-003, and M-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Grab	Daily when Discharging	---
pH	pH units	Recorder/Totalizer	Continuous	---
Total Chlorine Residual	mg/L	Recorder	Continuous	---
Coliform Organisms	MPN/100 ml	Grab	Daily when Discharging	See I.B., above
TSS	mg/L	Grab	Daily when Discharging	See I.B., above
BOD_5	mg/L	Grab	Daily when Discharging	See I.B., above
TDS	mg/L	Grab	Daily when Discharging	See I.B., above
Total Hardness	mg/L	Grab	Daily when Discharging	See I.B., above
Volatile Organic Portion of Priority Pollutants (See Attachment G)	µg/L	Grab	Annually[1]	See I.B. through I.F., above
Priority Pollutants (See Attachment G)	µg/L	Composite	Annually[1]	See I.B. through I.F., above

[1] The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than the concentration specified for that pollutant in Attachment I shall be accelerated to quarterly for one year. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Santa Ana Water Board's Executive Officer or designee.

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Chronic Toxicity Testing – Monitoring Locations M-001A, M-002, M-003, and M-004

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

The "in-stream" waste concentration (IWC) for this discharge is 100 percent effluent.

2. Routine Chronic Toxicity Monitoring Frequency

For routine chronic toxicity monitoring, the Discharger shall conduct at least one chronic toxicity test every calendar month. For M-001A through M-004, samples for chronic toxicity shall be collected by the 15th day of the of each month, or for a justifiable reason before or after the 15th day, to allow corresponding Median Monthly Effluent Target (MMET) or Median Monthly Effluent Limitation (MMEL)

compliance tests to be initiated within the same calendar month. The Santa Ana Water Board may determine that a specific monitoring event is not required to be initiated in the required time period when the test was not initiated in the required test period due to circumstances outside of the Discharger's control that were not preventable with the reasonable exercise of care, and the Discharger promptly initiates, and ultimately completes, a replacement test.

3. **Median Monthly Effluent Target and Limit Compliance Monitoring**

   If a chronic toxicity test conducted during routine monitoring results in a "Fail" at the IWC, the Discharger shall conduct a maximum of two chronic toxicity MMET/MMEL compliance tests. When there is no effluent available to complete a routine monitoring test, MMET test or MMEL compliance test, the test is not required, and the routine monitoring continues at the frequency specified in this Order. The MMET/MMEL compliance tests shall be initiated within the same calendar month that the first routine chronic toxicity test was initiated that resulted in a "Fail" at the IWC. If the first chronic toxicity MMET/MMEL compliance test results in a "Fail" at the IWC, then the second chronic toxicity MMET/MMEL compliance test is not required.

4. **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 Toxicity Identification Evaluation (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. **Chronic Freshwater Species and Test Methods**

   If effluent samples are collected from outfalls discharging to receiving waters with salinity less than 1 part per thousand (ppt), the Discharger shall conduct the following chronic toxicity tests on effluent samples at the IWC in accordance with the species and test methods in *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). Control and dilution water should be receiving water or lab water as appropriate. Approved tests methods for chronic toxicity are as follows:

   a. Fathead Minnow, *Pimephales promelas*, Larval Survival and Growth Test Method 1000.0.

   b. Daphnid, *Ceriodaphnia dubia,* Survival and Reproduction Test Method 1002.0.

   c. Green Alga, *Selenastrum capricornutum*, Growth Toxicity Test Method 1003.0

In no case shall these species be substituted with another test species unless written authorization from the Santa Ana Water Board is received.

6. **Species Sensitivity Screening**

The Discharger shall conduct four sets of species sensitivity screening (SSS) during the first year of re-issuance of this Order, with one set of screenings conducted in each quarter of the year. The first set of SSS shall be conducted during this Order's first required sample collection. For each set of testing, the Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, invertebrate, and alga species referenced in section V.A.5. above. As allowed under the test method for the *Ceriodaphnia dubia* and the *Pimephales promelas*, a second and third sample shall be collected for use as test solution renewal water as the seven-day toxicity test progresses. Samples for the SSS shall be analyzed using the Test of Significant Toxicity (TST) approach. For justifiable reasons, the Discharger may complete the four sets of SSS within the first 18 months of re-issuance of this Order.

After the first, second, and third set of species sensitivity screening, the Discharger shall consult with the Santa Ana Water Board to determine the species used for routine chronic toxicity monitoring until the next set of species sensitivity screening. After the fourth set of species sensitivity screening, the most sensitive species for routine chronic toxicity monitoring will be determined using the following hierarchal order:

a. The species exhibiting the most 'Fails'.

b. If all species result in a "Pass", the species exhibiting the highest percent effect.

c. If all species result in a "Pass" and there is no difference in percent effect, the species will be determined by Santa Ana Water Board.

The four sets of species sensitivity screening are required during the first year of operation of the permit term. Also, during the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the Maximum Daily Effluent Limitation (MDEL) and MMET/MMEL for chronic toxicity.

7. **Quality Assurance (QA) and Additional Requirements**

QA 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" from a chronic toxicity test using the *Test of Significant Toxicity (TST) statistical t-test approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833/R-10/003, 2010), Appendix A, Figure A-1 and Table A-1 and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response) × 100. This is a t-test (formally Student's t-test), a statistical analysis comparing two sets of replicate observations—in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail"). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

a. The MDEL for chronic toxicity is exceeded and a violation will be flagged when a toxicity test during routine monitoring results in "Fail" in accordance with the TST approach and the "Percent Effect" is greater than or equal to 50 percent.

b. The MMET/MMEL for chronic toxicity is exceeded and, only in the case of the MMEL, a violation will be flagged when two or more toxicity tests in a calendar month result in a "Fail" in accordance with the TST approach.

c. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (USEPA 2002, EPA/821/R-02/013), the test should be declared invalid, then the Discharger must resample and re-test within 14 days of test termination.

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

e. Monthly reference toxicant testing is sufficient if in accordance with *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). All reference toxicant test results should be reviewed and reported using the effects concentration at 25 percent (EC25).

f. The Discharger shall perform toxicity tests on final effluent samples collected at Monitoring Locations (after dechlorination). Ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized

under this section of this MRP and the rationale is explained in the Fact Sheet (Attachment F).

g. Reference toxicant tests must meet the upper and lower bounds on test sensitivity, as determined by calculating the Percent Minimum Significant Difference (PMSD) for each test result, where required by the test method. Test sensitivity bounds are specified in Table 3-6 of *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program* (EPA/833/R-00/003, June 2000).

8. **Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE)**

If toxicity is detected (as defined) the Discharger shall implement a TRE work plan and if necessary, a TIE as required in section VI.C.2.b. of the Order.

9. **Reporting Requirements**

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

a. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-11.

b. Summary water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

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

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

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

f. Graphical plots clearly showing the laboratory's performance for the reference toxicant for the previous 20 tests and the laboratory's performance for the control mean, control standard deviation, and control coefficient of variation for the previous 12-month period.

g. Any additional quality assurance/quality control (QA/QC) documentation or any additional chronic toxicity-related information, upon written request from the Santa Ana Water Board.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS

A. Monitoring Locations REC-001 through REC-004

1. The Discharger shall monitor recycled water at Monitoring Locations REC-001 through REC-004 as follows:

Table E-7. Recycled Water Monitoring Requirements at REC-001 through REC-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Recorder/Totalizer	Continuous	---
pH	pH units	Recorder	Continuous	---
TCRCT[1]	min-mg/L	Calculated	Continuous	---
FCRCT[2]	min-mg/L	Calculated	Continuous	
Turbidity	NTU	Recorder	Continuous	---
Total Chlorine Residual[3]	mg/l	Recorder	Continuous	---
Free Chlorine Residual[3]	mg/L	Recorder	Continuous	---
Coliform Organisms	MPN/100 ml	Grab	Daily	See I.B., above
BOD_5	mg/L	Composite	Daily	See I.B., above
TSS	mg/L	Composite	Daily	See I.B., above
TDS	mg/L	Composite	Monthly	See I.B., above

[1] Total Chlorine Residual Contact Time.
[2] Free Chlorine Residual Contact Time.
[3] Measured at the outlet of each chlorine contact basin.

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B. Monitoring Users

Whenever recycled water is supplied to a user, the user's name, the dates and volumes of recycled water use, the location(s) of use (including the name of the groundwater management zone underlying the recycled water use site), and the type of use (e.g. irrigation, industrial, etc.) shall be recorded on a permanent log. A summary report of water use by groundwater management zone for the previous

calendar year shall be submitted to the Santa Ana Water Board by March 1 of each year.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

A. Flow Measurements at Monitoring Locations R-002U, R-003U, and R-004U During 20:1 Dilution

The Discharger shall make provisions for the measurement of the receiving water flow at a suitable location in the creek and determine whether a 20:1 dilution exists at DP-002, DP-003, or DP-004, before discharging secondary treated effluent. A dilution of 20:1 or more exclusive of discharges to surface waters from upstream publicly owned treatment works is required at the point of discharge for the discharge of secondary treated effluent. Flow measurements shall be made prior to any direct discharge to the creeks and shall continue on a daily basis until the discharge is terminated.

B. Monitoring Locations R-002U, R-003U, and R-004U

1. The Discharger shall monitor the receiving water at Monitoring Locations R-002U. R-003U, and R-004U when there is flowing water as follows:

Table E-8. Receiving Water Monitoring Requirements at R-002U, R-003U, and R-004U

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Estimate	Weekly	---
Dissolved Oxygen	mg/L	Grab	Weekly	---
Temperature	°C	Grab	Weekly	---
pH	pH units	Grab	Weekly	---
TDS	mg/L	Grab	Monthly	See I.B., above
TIN	mg/L	Grab	Monthly	See I.B., above
Total Hardness	mg/L	Grab	Quarterly	See I.B., above
TSS	mg/L	Grab	Quarterly	See I.B., above
Selenium (R-002U only)	µg/L	Grab	Quarterly	See I.B., above
Copper	µg/L	Grab	Quarterly	See I.B., above
Lead	µg/L	Grab	Quarterly	See I.B., above
Priority Pollutants (see VIII.C.2., below)	µg/L	Grab	Annually	See I.B. and I.F., above

C. Monitoring Locations R-002D and R-003D

1. The Discharger shall monitor the receiving water at Monitoring Locations R-002D and R-003D, when there is flowing water upstream of the discharge point, as follows:

Table E-9. Receiving Water Monitoring Requirements at R-002D and R-003D

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	Weekly	---
Temperature	°C	Grab	Weekly	---
pH	pH units	Grab	Weekly	---
Color change, foam, deposition of material, odor	---	Observation	Weekly	See I.C., above
Total Hardness	mg/L	Grab	Quarterly	See I.C., above
TSS	mg/L	Grab	Quarterly	See I.C., above
Selenium (R-002D only)	µg/L	Grab	Quarterly	See I.C., above
Copper	µg/L	Grab	Quarterly	See I.C., above
Lead	µg/L	Grab	Quarterly	See I.C., above
Priority Pollutants (see VIII.C.2., below)	µg/L	Grab	Annually	See I.B. and I.F., above

2. For all the receiving water annual monitoring of the heavy metals Priority Pollutants (Table E-8 and Table E-9), the total recoverable and total dissolved metal concentrations shall be determined. Also, monitoring for selenium shall be conducted quarterly at R-002U and R-002D only.

D. Regional Monitoring for Fish Flesh Testing

Unless otherwise directed by the Santa Ana Water Board Executive Officer, the Discharger shall implement the approved plan for the annual sampling and testing of mercury levels in fish flesh samples collected from the Santa Ana River. The frequency of monitoring and submission of reports shall be as stipulated in the approved plan.

IX. OTHER MONITORING REQUIREMENTS

A. Storm Water Monitoring and Reporting

The Discharger shall monitor discharges at Discharge Points S-001, S-002 and S-003 (as specified in Table E-2 of this MRP) and submit monitoring reports in accordance with Attachments J and K - Stormwater Monitoring and Reporting Requirements.

B. Water Supply Monitoring

1. At least once per year a sample of each source of the water supplied to the sewered area shall be obtained and analyzed for total dissolved solids.
2. Monthly reports shall be submitted stating the amount (in percentage or acre-feet) supplied to the sewered area from each source of water and the resulting flow-weighted water supply quality for total dissolved solids.

C. Pretreatment Monitoring and Reporting

1. The Discharger shall submit to the Santa Ana Water Board and U.S. EPA Region 9, a quarterly compliance status report. The quarterly compliance status reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 - December 31. Each report shall be submitted by the end of the month following the quarter. This quarterly reporting requirement shall commence for the first full quarter following issuance of this Order. The reports shall identify:

   a. All significant industrial users (SIUs) which violated any standards or reporting requirements during that quarter;

   b. The violations committed (distinguish between categorical and local limits);

   c. The enforcement actions undertaken; and

   d. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the quarter).

2. Annually, the Discharger shall submit a report to the Santa Ana Water Board, the State Water Board and the U.S. EPA Region 9 describing the pretreatment activities within the service area during the previous year. In the event that any control authority within the service area is not in compliance with any conditions or requirements of this Order or their approved pretreatment program (such as due to industrial user discharges, interjurisdictional agency agreement implementation issues, or other causes,) then the Discharger shall also include the reasons for non-compliance and state how and when the Discharger and the control authority shall comply with such conditions and requirements. This annual report shall cover operations from July 1 through June 30 of each fiscal year and is due on September 30 of each year. The report shall contain, but not be limited to, the following information:

   a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTW's influent and effluent wastewaters for those pollutants which are known or suspected to be discharged by industrial users (IUs) as identified by EPA under Section 307(a) of the CWA. The summary will include the result of annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants[4] detected in the full scan. The Discharger shall also provide any influent or effluent monitoring data for non-priority pollutants that the Discharger believes may be causing or contributing to interference or pass-through, or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.

   b. A discussion of any upset, interference, or pass-through incidents at the treatment plant (if any), which the Discharger knows or suspects were

[4] The Discharger is not required to analyze for asbestos.

caused by IUs of the POTW system. The discussion shall include the following:

i. The reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the IU(s) responsible.

ii. 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, interference or noncompliance with sludge disposal requirements.

c. A complete and updated list of the Discharger's significant industrial users (SIUs), including names, Standard Industrial Classification (SIC) code(s) and addresses, and a list of any SIU deletions and/or additions. The Discharger shall provide a brief explanation for each deletion. The SIU 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 more stringent than Federal Categorical Standards and those which are not subject to local limits.

d. A list or table characterizing the industrial compliance status of each SIU, including:

i. SIU name;

ii. Industrial category;

iii. The type (processes) of wastewater treatment in place;

iv. Number of samples taken by the POTW during the year;

v. Number of samples taken by the SIU during the year;

vi. Whether all needed certifications (if allowed) were provided by SIUs which have limits for total toxic organics;

vii. Federal and Regional Standards violated during the year, reported separately;

viii. Whether the SIU at any time in the year was in Significant Noncompliance (SNC)[5], as defined by 40 CFR 403.12 (f)(2)(vii); and

ix. A summary of enforcement actions against the SIU taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions, if known, should be included.

x. Number of inspections conducted at each SIU during the year.

e. A compliance summary table which includes:

i. SIU's which were in SNC at any time during the year;

[5] SNC is determined at the beginning of each quarter based on data of the previous six months.

ii. The total number of SIUs which are in SNC with pretreatment compliance schedules during the year;

iii. The total number of notices of violation and administrative orders issued against SIUs during the year;

iv. The total number of civil and criminal judicial actions filed against SIUs during the year;

v. The number of SIUs which were published as being in SNC during the year; and

vi. The number of IUs from which penalties were collected during the year.

f. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to changes concerning:

i. The program's administrative structure;

ii. Local industrial discharge limitations;

iii. Monitoring program or monitoring frequencies;

iv. Legal authority or enforcement policy;

v. Funding mechanisms; and

vi. Resource requirements and/or staffing levels.

g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

h. A summary of public participation activities to involve and inform the public.

i. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

3. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

4. The Discharger shall submit the quarterly compliance status reports and the annual pretreatment report to U.S. EPA Region 9, the State Water Board, and the Santa Ana Water Board.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

2. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Santa Ana Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

3. Discharge monitoring data shall be submitted in a format acceptable by the Santa Ana Water Board. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Santa Ana Water Board and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.
4. The Discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the requirements of the Order.
5. The Discharger shall submit to the Santa Ana Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment G – Priority Pollutant Lists. The Discharger shall report with each sample result:
    a. The minimum level achieved by the testing laboratory; and
    b. The laboratory's current MDL, as determined by the procedure found in 40 CFR 136.
    c. For those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136. In situations where the trigger value listed in Attachment I is below the minimum level value specified in Attachment H and the Discharger cannot achieve an MDL value for that pollutant below or equal to the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.
6. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Santa Ana Water Board by letter when compliance with the time schedule has been achieved.
7. The reports for June and December shall include a roster of plant personnel, including job titles, duties, and level of State certification for each individual.
8. The Discharger shall report monitoring results for specific parameters in accordance with the following table:

Table E-10. Reporting Requirements

Parameter	Measurement
Flow	Daily Total
pH	Daily High and Daily Low
Total Residual Chlorine	Daily Maximum

Electrical Conductivity	Daily Maximum
Turbidity	Daily Maximum

9. The Discharger shall file a written report with the Santa Ana Water Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of the waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy making body is adequately informed about it. The report shall include:

   a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.

   b. The Discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the treatment facilities.

   c. The Discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

B. Self-Monitoring Reports (SMRs)

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

2. Receiving water monitoring data shall also be stored in a SWAMP comparable electronic format and uploaded into the California Environmental Data Exchange Network (CEDEN) on annual basis at a minimum or more frequently. The data uploaded must include the associated field monitoring station and quality assurance data.

3. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through IX. Additionally, the Discharger shall report in the SMR the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit monthly, quarterly, and annual SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

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

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Order effective date	All	Submit with monthly SMR
Daily	Order 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 Order effective date or on Order effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following Order effective date or on Order effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	First day of the second month following the reporting period, submit as monthly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) Order effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	First day of the second month following the reporting period, submit as monthly SMR
Semiannually	Closest of January 1 or July 1 following (or on) Order effective date	January 1 through June 30 July 1 through December 31	First day of the second month following the reporting period, submit as monthly SMR
Annually	Order effective date	January 1 through December 31	April 1 each year including report requirements in Attachments. Pretreatment report due on September 30

5. 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 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.

6. 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 Santa Ana 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).

7. Multiple Sample Data. When determining compliance with an AMEL, AWEL, or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

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

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

8. 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.

C. Discharge Monitoring Reports (DMRs)

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

D. Other Reports

1. TRE/TIE and PMP

The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, and PMP required by Special Provisions – VI.C. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date in compliance with SMR reporting requirements described in Section X.B.3, above.

2. Volumetric Reporting

The Discharger shall submit an annual report to the State Water Board by April 30 of each calendar year. The Discharger must submit this annual report containing monthly data in electronic format via the State Water Board's Internet GeoTracker system at http://geotracker.waterboards.ca.gov/ under a site-specific global identification number. Any data will be made publicly accessible as machine readable datasets. The Discharger must report volumes in acre-feet (af) in accordance with each of the items in section 3.2. of the Recycled Water Policy that apply to the Discharger

3. Site Spills

a. 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.

b. In accordance with the requirements of Water Code section 13271, the Discharger shall provide notification to the Office of Emergency Services 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. The California Code of Regulations, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Office of Emergency Services is (800) 852-7550.

c. The Discharger shall notify the Santa Ana Water Board of any unauthorized release of sewage from its wastewater treatment plant that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. This notification does not need to be made if the Discharger has notified the Office of Emergency Services. The phone number for reporting these releases of sewage to the Santa Ana Water Board is (951) 782-4130. At a minimum, the following information shall be provided:

   i. The location, date, and time of the release.

   ii. The water body that received or will receive the discharge.

   iii. An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification.

   iv. If ongoing, the estimated flow rate of the release at the time of the notification.

   v. The name, organization, phone number and email address of the reporting representative.

d. As soon as possible, but not later than twenty-four (24) 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 Santa Ana Water Board by email at spillreportR8@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that the State Office of Emergency Services 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:

   i. Agency and Order No.

   ii. The location, date, and time of the discharge.

   iii. The water body that received the discharge.

iv. A description of the level of treatment of the sewage or other waste discharged.

v. An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water.

vi. The Office of Emergency Services control number and the date and time that notification of the incident was provided to the Office of Emergency Services.

vii. 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).

ATTACHMENT F – FACT SHEET

CONTENTS

TABLES

ATTACHMENT F – FACT SHEET

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

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	8 332818001			
Discharger	Inland Empire Utilities Agency			
Name of Facility	Regional Water Recycling Plant No. 1 (RP-1)	Regional Water Recycling Plant No. 4 (RP-4)	Regional Water Recycling Plant No. 5 (RP-5)	Carbon Canyon Water Recycling Facility (CCWRF)
Facility Address	2662 East Walnut Street.	12811 Sixth Street	6068 Kimball Avenue, Building "C"	14950 Telephone Avenue
	Ontario, CA 91761	Rancho Cucamonga, CA 91729	Chino, CA 91708	Chino, CA 91710
	San Bernardino County			
Facility Contact, Title and Phone	Pietro Cambiaso, Acting Director of Planning and Resources, (909) 993-1639			
Authorized Person to Sign and Submit Reports	SAME			
Mailing Address	P.O. Box 9020, Chino Hills, CA 91709			
Billing Address	SAME			
Type of Facility	POTW			
Major or Minor Facility	Major			
Threat to Water Quality	1			
Complexity	A			
Pretreatment Program	Y			
Recycling Requirements	Master Recycling Permit			
Facility Permitted Flow	85 million gallons per day (MGD) and 92.5 MGD by 2024			

Facility Design Flow		44 MGD	14 MGD	15 MGD (and 1.3 MGD flow from sludge treatment system at RP-2) and 22.5 MGD by 2024	12 MGD
Watershed		Santa Ana River Watershed			
Receiving Water	**Surface Waters**	Prado Park Lake, Reach 1A of Chino Creek, Reach 1 of Cucamonga Creek, Mill Creek, and Reach 3 of Santa Ana River		Reach 1B of Chino Creek and Reach 3 of Santa Ana River	Reach 2 of Chino Creek and Reach 3 of Santa Ana River
	Groundwater	Chino North “Maximum Benefit” Groundwater Management Zone/Chino 1, 2, and 3 “Antidegradation” Groundwater Management Zones			
Receiving Water Type		Inland Surface Water; Groundwater			

A. Inland Empire Utilities Agency (hereinafter Discharger or IEUA) is the owner and operator of Regional Water Recycling Plant Nos. 1, 4, and 5, and the Carbon Canyon Water Recycling Facility (CCWRF) (hereinafter Facilities), a collection of POTWs and water recycling facilities under the same ownership and operation which make up a regional sewer and recycled water system.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Facilities discharge wastewater to Reaches 1A, 1B and 2 of Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and Reach 3 of the Santa Ana River. Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and the Santa Ana River are waters of the United States. The Discharger was previously regulated by Order R8-2015-0036 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA8000409 adopted on November 1, 2015 and expired on October 31, 2020. Since the Discharger filed a timely application for renewal of its permit, the terms and conditions of Order R8-2015-0036 have been automatically continued and remain in effect until new Waste Discharge Requirements, which also serve as an NPDES permit, are adopted pursuant to this Order. Attachment B provides a map of the area around the Facilities. Attachment C provides a flow schematic of the Facilities.

C. When applicable, state law requires dischargers to file a petition with the State Water Board, Division of Water Rights and receive approval for any change in the point of discharge, place of use, or purpose of use of treated wastewater that decreases the flow in any portion of a watercourse. The State Water Board retains separate jurisdictional authority to enforce any applicable requirements under Water Code section 1211. This is not an NPDES permit requirement.

D. The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on April 30, 2020. Site visits were conducted at the Facilities between March 16, 2022 and March 23, 2022, to observe operations and collect additional data to develop permit limitations and requirements for waste discharge. The application was deemed complete on April 25, 2022.

E. Regulations at 40 CFR 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits (See also 40 CFR § 122.6(d)).

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

1. Service Area

Inland Empire Utilities Agency (IEUA) is a municipal water supply and wastewater treatment agency. IEUA owns and operates a regional wastewater collection system and water recycling plants, including RP-1, RP-4, RP-5, and CCWRF. The treatment Facilities receive domestic, commercial, and industrial wastewaters generated within the IEUA service areas. Wastewater can be diverted to different plants via available routing options built into the regional system (see Figure 1 of Attachment C for further details). After treatment, recycled water can be discharged to nearby outfall(s) or recycled for industrial uses, irrigation and groundwater recharge. The following table summarizes the service areas and the population served by each Facility.

Table F-2. Facility Service Area

Facility	Population Served	Cities/Agency Served
RP-1 and RP-4	609,254	Fontana, Montclair, Upland, Ontario, Cucamonga Valley Water District, and some unincorporated areas
RP-5	115,244	Chino, Chino Hills, and Ontario; Montclair and Upland via CCWRF
CCWRF	92,874	Chino, Chino Hills, Montclair, Upland, and some unincorporated areas

2. Wastewater Design Characteristics and Treatment Capacity

RP-1 is located at 2450 East Walnut Street, Ontario. The current design treatment capacity of the Facility is 44.0 MGD. Preliminary and primary treatment at RP-1 includes mechanical bar screens, grit chambers, chemical addition, primary clarifiers, and flow equalization/emergency storage basins. Secondary treatment consists of aeration trains with oxic/anoxic zones and secondary clarifiers. The tertiary treatment trains consist of coagulation/flocculation, sedimentation, filtration, chlorination, and dechlorination. The annual average

influent flow for RP-1 in 2019 was 23.6 MGD, with an annual average effluent flow of 2.3 MGD.

RP-4 is located at 12811 Sixth Street, Rancho Cucamonga. The design capacity of RP-4 is 14.0 MGD. Preliminary and primary treatment at RP-4 includes fine-screens, grit chambers, chemical addition, and primary clarifiers. Secondary treatment consists of aeration trains with oxic/anoxic zones and secondary clarifiers. The tertiary treatment trains consist of coagulation/flocculation, filtration, chlorination, and an emergency diversion pond. The annual average influent flow from RP-4 in 2019 was 9.5 MGD, with an annual average effluent flow of 9.1 MGD.

RP-5 is located at 6068 Kimball Avenue, Building “C”, Chino. The design capacity for RP-5 is 15.0 MGD and 1.3 MGD flow from the sludge treatment system at RP-2. Preliminary and primary treatment at RP-5 includes mechanical bar screen, vortex type grit chamber, one storage basin, and primary clarifiers. Secondary treatment consists of aeration trains with oxic/anoxic zones and secondary clarifiers. The tertiary treatment trains consist of coagulation/flocculation, sand-media filtration, chlorination, dechlorination, and an emergency overflow pond. The annual average influent flow from RP-5 in 2019 was 7.5 MGD, with an annual average effluent flow of 2.4 MGD. The Discharger plans to complete by 2024 the construction phase of the treatment capacity expansion of RP-5 to 22.5 MGD, which will replace, upgrade, eliminate, and/or add treatment units. As part of the ongoing construction activities, the Discharger will add two (2) new pumps to the influent pump station (for a total of five), three (3) new bar screens, four (4) new fine screens, and one (1) more vortex type grit chamber to the headworks, two (2) new primary clarifiers for a total of four (4), and a new main odor control facility with biotrickling filters and carbon polishing units (existing one to be demolished). Also, the two (2) existing activated sludge process aeration basins will be overhauled and upgraded with thirty-two (32) new submersible mixers and four (4) new mixed liquor recycle pumps. The four (4) existing secondary clarifiers and the tertiary sand-media filters will be demolished and a new 10 membrane bioreactor (MBR) units will be built (8 equipped with membranes and two left for future expansion) and will include eight (8) filtrate pumps, two (2) back-pulse pumps, and four (4) air scour blowers. The existing chlorine disinfection system will be kept and operated (see Figure 6 of Attachment C for the new RP-5 process flow schematic after 2024).

CCWRF is located at 14950 Telephone Avenue, Chino. The design capacity for CCWRF is 12.0 MGD. Preliminary and primary treatment at CCWRF includes mechanical bar screen, grit removal, chemical addition, primary clarifiers, and an emergency storage basin. Secondary treatment consists of aeration trains with oxic/anoxic zones and secondary clarifiers. The tertiary treatment trains consist of coagulation/flocculation, filtration, chlorination, and dechlorination. The annual average influent flow from CCWRF in 2019 was 7.3 MGD, with an effluent flow of 3.1 MGD.

3. Biosolids Handling Practices

Primary sludge and waste activated sludge from RP-4 is conveyed through the sewer system and enters RP-1 as influent. Digested sludge is dewatered with belt presses. Solids treatment at RP-1 includes gravity thickener and dissolved air flotation thickeners, anaerobic digestion, digester gas utilization, and centrifuge dewatering. Centrifuge concentrate is pumped to the Non-Reclaimable Waste System (NRWS) line and is ultimately treated by the County Sanitation Districts of Los Angeles County.

Primary sludge and waste activated sludge from RP-5 and CCWRF are piped to the regional solids handling facility at RP-2 for sludge treatment. The solids treatment system at RP-2 includes gravity thickeners; dissolved air flotation thickeners; anaerobic digestion; aerobic digestion; belt press, and centrifuge dewatering. Dewatered biosolids are hauled away to approved disposal sites Sludge treatment system wastewater from RP-2 is pumped back to headworks of RP-5. By 2024, the Discharger plans to complete its treatment capacity expansion at RP-5 and will add a biosolids handling process, to RP-5, that will consist one (1) acid phase digester, three (3) gas phase digesters, one (1) digested sludge storage tank, and associated ancillary equipment. Also, new solids-thickening and biosolids dewatering facilities equipped with odor control system will be built and food waste will be fed to the digesters. Once the new biosolids handling facilities are built and operational at RP-5, the biosolids handling facilities at RP-2 will be demolished.

4. Recycled Water Uses

The Discharger delivers tertiary treated wastewater through the regional recycled water system at various locations for recycled water use. The recycled water is used for landscape irrigation by public and private users, for agricultural irrigation by farmers, for dust control at construction sites and for industrial purposes, including equipment/machinery cooling. The maximum annual average flow for recycled water uses during the term of the previous order ranged from 2.6 MGD for RP-5 in 2018 to approximately 16.1 MGD for RP-1 in 2016. This Order also regulates the recycled water use within the Discharger's service area.

Recycled water from RP-1 and RP- 4 is also produced for indirect potable reuse such as groundwater recharge, via surface application, in areas overlying the Chino North Groundwater Management Zone. The groundwater recharge is regulated under a separate Order (Order R8-2007-0039). Order R8-2007-0039 was issued to the Discharger and the Chino Basin Watermaster to regulate the use of recycled water for the Chino Basin Recycled Water Groundwater Recharge Project, Phase I and Phase II. This Order (R8-2022-0041) does not regulate the use of recycled water for groundwater recharge directly, however, does implement pertinent water recycling requirements for indirect potable reuse that relate to the production of recycled water at RP-1 and RP-4 (see section IV.C.2.c.iii and IV.C.11. of the Order and section IV.G.5. of Attachment F).

B. Discharge Points and Receiving Waters

Table F-3. Discharge Points and Receiving Waters

Discharge Point	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Effluent Description	Receiving Water
DP-001	33.94417º	-117.64280º	Tertiary treated wastewater from RP-5	Prado Park Lake, overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
DP-002	34.02528º	-117.56560º	Tertiary treated wastewater from RP-1 and RP-4	Reach 1 of Cucamonga Creek, then to Mill Creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
DP-003	33.96222º	-117.67810º	Tertiary treated wastewater from RP-5	Reach 1B of Chino Creek, a tributary to Reach 3 of Santa Ana River
DP-004	33.98222º	-117.69670º	Tertiary treated wastewater from CCWRF	Reach 2 of Chino Creek, a tributary to Reach 3 of Santa Ana River
DP-005	34.02472º	-117.59920º	Recycled water from RP-1	Use area overlying Chino North "Max Benefit" GMZ (or Chino 1, 2, and 3 "Antidegradation" GMZs- see Fact Sheet)
DP-006	34.08306º	-117.52640º	Recycled water from RP-4	
DP-007	33.96417º	-117.67330º	Recycled water from RP-5	
DP-008	33.97972º	-117.69360º	Recycled water from CCWRF	
S-001	34.02667º	-117.59970º	Storm water from RP-1, west	Storm water runoff to Reach 1 of Cucamonga Creek
S-002	34.02444º	-117.59940º	Storm water from RP-1, east	Storm water runoff to Reach 1 of Cucamonga Creek
S-003	33.95278º	-117.66940º	Storm water from RP-2	Storm water runoff to Reach 1 B of Chino Creek

1. **Discharge Points to Surface Water**

   Tertiary treated wastewater from each of the four Facilities is discharged at different Discharge Points (DP-001, DP-002, DP-003, and DP-004) to surface waters that include Reaches 1A, 1B and 2 of Chino Creek, Reach 1 of Cucamonga Creek, and Prado Park Lake. These waterbodies are tributary to Reach 3 of the Santa Ana River within the Prado Basin Management Zone (PBMZ).

2. **Storm Water Discharge Points**

   Storm water flows generated on site at RP-1 are collected and pumped to the liquid treatment process of RP-1 for treatment. If storm water flows exceed the capacity to store and/or pump to a liquid treatment process, storm water may enter Reach 1 of Cucamonga Creek via S-001 or S-002.

   Under typical operating conditions, storm water flows generated on site at RP-2 are contained within the site and an outfall valve that leads to Chino Creek is closed. During severe storm events, Chino Creek, which is adjacent to RP-2, may rise and flood part of the RP-2 site by the outfall valve location and cause storm

water runoff from RP-2 to come into contact with Chino Creek's flood waters. Under these circumstances, a discharge of storm water occurs from RP-2 to Chino Creek.

Storm water may be discharged from RP-2 to Reach 1B of Chino Creek through S-003. Storm water flows generated on site at RP-4 are fully contained in an onsite, 4-million-gallon capacity storage basin. All water captured in this basin is then pumped to a liquid process stream for treatment.

Stormwater flows generated on site at RP-5 and CCWRF plant are collected and pumped to the liquid treatment process of RP-5 and CCWRF, respectively, for treatment.

3. **Recycled Water Use Area**

   Recycled water for irrigation is delivered to IEUA's service area through DP-005 through DP-008.

4. **Receiving Waters**

   Surface Waters. The tertiary treated wastewater effluent from the Facilities is discharged either into Reaches 1A, 1B and 2 of Chino Creek, Reach 1 of Cucamonga Creek, and Prado Park Lake, which are tributaries of Reach 3 of the Santa Ana River within the PBMZ.

   Groundwater. The Discharger distributes recycled water throughout its service area. The current recycled water use area overlies the Chino North "Maximum Benefit" Groundwater Management Zone (or Chino 1, 2, and 3 "Antidegradation" Groundwater Management Zones).

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

1. Effluent limitations/discharge specifications contained in the previous Order R8-2015-0036 and representative monitoring data from November 2015 to April 2020 under conditions without 20:1 dilution in the receiving water.

   a. Effluent Limitations/Discharge Specifications contained in the previous Order R8-2015-0036 for discharges at DP-001, DP-002, DP-003, and DP-004 and representative monitoring data from November 2015 to April 2020 are as follows:

Table F-4. RP-1 Historic Effluent Limitations at DP-001 through DP-004 and Monitoring Data at M-001A, M-001B, M-002A, M-002B, M-003, and M-004 Under Conditions Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	20	30	--	2	4	--
For DP-001 + DP-002 (RP-1 + RP-4)	lbs/day	9,674	14,512	--	<612	<660	--
For DP-003 (RP-5)	lbs/day	2,502	3,753	--	<157	<174	--
For DP-004 (CCWRF)	lbs/day	2,002	3,002	--	<124	<143	--
BOD_5 Percent Removal	Percent	≥85	--	--	98.9[1]	--	--
Total Suspended Solids (TSS)	mg/L	20	30	--	3	23	--
For DP-001 + DP-002 (RP-1 + RP-4)	lbs/day	9,674	14,512	--	<610	<658	--
For DP-003 (RP-5)	lbs/day	2,502	3,753	--	<125	<180	--
For DP-004 (CCWRF)	lbs/day	2,002	3,002	--	<124	<143	--
TSS Percent Removal	Percent	≥85	--	--	98.0[1]	--	--
pH	pH units	6.5 - 8.5 at all times			6.5 – 8.3[2]		
Ammonia Nitrogen	mg/L	4.5	--	--	0.25	--	--
Total Residual Chlorine	mg/L	--	--	0.1[3]	--	--	4.9
Total Dissolved Solids (TDS)	mg/L	550[4]	--	--	524[4]	--	--
TDS	lbs/day	366,960[4]	--	--	217,750[4]	--	--
Total Inorganic Nitrogen (TIN)	mg/L	8[4]	--	--	6.1[4]	--	--
TIN	lbs/day	5,338[4]	--	--	1,050[4]	--	--
Turbidity	NTU	2[5]	5[6]	10[7]	0.89[5]	1.3[6]	4.7[5]
Coliform Organisms	MPN/100 ml	23[8]	2.2[9]	240[10]	261[8]	79[9]	2,420[10]

NA = Not Available

1 Minimum monthly average.

2 Minimum and maximum values.

3 Instantaneous maximum.

[4] Annual flow-weighted running average.
[5] Daily average.
[6] 95% sample maximum in a 24-hour period.
[7] Daily maximum.
[8] Not to be exceed more than once within a 30-day period.
[9] 7-day median.
[10] Single sample maximum.

Table F-5. RP-1 and RP-4 Historic Effluent Limitations at DP-002 and Monitoring Data at M-002A Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Cadmium, Total Recoverable	µg/L	1.0	--	2.0	<0.01	--	<0.01
Copper, Total Recoverable	µg/L	14	--	20	7.7	--	7.7
Lead, Total Recoverable	µg/L	8	--	15	<0.02	--	<0.02
Zinc, Total Recoverable	µg/L	120	--	150	52	--	52

Table F-6. RP-5 Historic Effluent Limitations at DP-003 and Monitoring Data at M-003 Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Chlorodibromomethane	µg/L	34	--	68	9.0	--	9.0
2,3,7,8-TCDD (Dioxin)	µg/L	1.4E-08	--	2.8E-08	3.65E-06	--	3.65E-06

Table F-7. CCWRF Historic Effluent Limitations at DP-004 and Monitoring Data at M-004 Without 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Copper, Total Recoverable	µg/L	11	--	17	10.6	--	10.6
Chlorodibromomethane	µg/L	34	--	68	62	--	94

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Dichlorobromomethane	µg/L	46	--	67	51	--	58

2. Effluent limitations/discharge specifications contained in the previous Order R8-2015-0036 and representative monitoring data from November 2015 to April 2020 under conditions with 20:1 dilution in the receiving water.

   a. Effluent limitations/Discharge Specifications contained in the previous Order R8- 2015-0036 for discharges at DP-002, DP-003, and DP-004 and representative monitoring data during the previous permit term are as follows:

Table F-8. Historic Effluent Limitations and Monitoring Data at M-002, M-003, and M-004 Under Conditions With 20:1 Dilution in the Receiving Water

Parameter	Units	Effluent Limitation			Monitoring Data (From November 2015 to April 2020)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
BOD_5	mg/L	30	45	--	NODI[3]		NODI
BOD_5 Percent Removal	Percent	≤85	--	--	NODI		NODI
TSS	mg/L	30	45	--	NODI		NODI
TSS Percent Removal	Percent	≤85	--	--	NODI		NODI
pH	pH units	6.5 – 8.5 at all times					
Total Residual Chlorine	mg/L	--	--	2.1[1]	NODI	NODI	
Total Coliform Bacteria	MPN/ 100 mL	--	23[2]	--	NODI		NODI

[1] Instantaneous maximum.
[2] 7-day median.
[3] NODI means that no discharge occurred under 20:1 dilution conditions and no data is available.

D. Compliance Summary

Based on a review of effluent monitoring data submitted by the Discharger for the period from November 2015 through April 2020, the Discharger had the following effluent limitation violations during the term of the previous order.

Table F-9. Compliance Summary for RP-1, RP-4, RP-5, and CCWRF

Date	Plant	Parameter	Value	Permit Limit
12/15/2015	RP-5	2,3,7,8-TCDD (Dioxin)	0.66 pg/L	0.028 pg/L as a maximum daily

Date	Plant	Parameter	Value	Permit Limit
12/15/2015	RP-5	2,3,7,8-TCDD (Dioxin)	0.66 pg/L	0.014 pg/L as a monthly average
2/14/2017	RP-1	Chlorine, Total Residual	4.9 mg/L	0.1 mg/L as an instantaneous maximum
2/23/2017	CCWRF	Chlorodibromomethane	94 µg/L	68 µg/L as a daily maximum
2/24/2017	CCWRF	Chlorodibromomethane	71 µg/L	68 µg/L as a daily maximum
2/28/2017	CCWRF	Chlorodibromomethane	62 µg/L	34 µg/L as a monthly average
3/31/2017	CCWRF	Dichlorobromomethane	51 µg/L	46 µg/L as a monthly average
3/31/2017	CCWRF	Chlorodibromomethane	55 µg/L	34 µg/L as a monthly average
5/31/2017	CCWRF	Chlorodibromomethane	35 µg/L	34 µg/L as a monthly average
6/22/2017	RP-5	Total Coliform	70.3 MPN/100 ml	23 MPN/100 ml not to be exceed more than once within a 30-day period
7/6/2017	CCWRF	Total Coliform	1,732.9 MPN/100 ml	240 MPN/100 ml as a single sample maximum
7/31/2017	CCWRF	Chlorodibromomethane	36 µg/L	34 µg/L as a monthly average
7/31/2017	CCWRF	Dichlorobromomethane	51 µg/L	46 µg/L as a monthly average
8/19/2017	RP-5	Total Coliform	2,419.6 MPN/100 ml	240 MPN/100 ml as a single sample maximum
6/14/2018	RP-4	Total Coliform	155.3 MPN/100 ml	23 MPN/100 ml not to be exceed more than once within a 30-day period
11/8/2018	RP-1	Total Coliform	261.3 MPN/100 ml	240 MPN/100 ml as a single sample maximum
9/22/2019	RP-1	Total Coliform	261.3 MPN/100 ml	23 MPN/100 ml not to be exceed more than once within a 30-day period
12/31/2019	RP-4	Total Coliform	365.4 MPN/100 ml	240 MPN/100 ml as a single sample maximum

E. Planned Changes

The Discharger has indicated that the RP-5 liquids treatment expansion to 22.5 MGD and solids treatment facility is expected to be completed during the next permit term (see discussion in section II.A. of Attachment F). A revised ROWD will be filed by the Discharger at least 180 days before any material change is made in the character, location, or volume of discharge.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

A. Legal Authorities

This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as an NPDES permit authorizing the

Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order. This Order also includes Producer/User Recycling Requirements to regulate recycled water use for irrigation and other industrial uses.

B. California Environmental Quality Act (CEQA)

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

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

1. **Water Quality Control Plan.** The Santa Ana Water Board adopted a Water Quality Control Plan for the Santa Ana Basin (hereinafter Basin Plan) that became effective on January 24, 1995 that designates beneficial uses, establishes water quality objectives (WQOs), and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. The Basin Plan was updated in February 2008, June 2011, and February 2016. Requirements in this Order implement the Basin Plan. In addition, the Basin Plan implements State Water Board Resolution 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Based on the exception criteria specified in Resolution No. 88-63, the Santa Ana Water Board excepted Reach 3 of the Santa Ana River.

   On January 22, 2004, the Santa Ana Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate revised boundaries for groundwater subbasins, now termed “management zones”, new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The State Water Board and Office of Administrative Law approved the N/TDS Amendment on September 30, 2004 and December 23, 2004, respectively. Effluent limitations for TDS and TIN in this Order are based on N and TDS wasteload allocations included in the N/TDS Amendment and are at least as stringent as the limits in the prior order.

   As previously discussed, the Facility discharges ultimately into Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and Reach 3 of the Santa Ana River and affects downstream receiving surface and ground waters. Beneficial uses applicable to these affected waterbodies are as follows:

Table F-10. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Prado Park Lake, overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek	Present or Potential: Wildlife habitat (WILD); water contact recreation (REC-1) and non-contact water recreation (REC-2). Excepted from municipal and domestic supply (MUN)

Discharge Point	Receiving Water Name	Beneficial Use(s)
002	Reach 1 of Cucamonga Creek, to Mill Creek, then Reach 1A of Chino Creek	Present or Potential: Groundwater recharge (GWR); wildlife habitat (WILD); water contact recreation (REC-1)[1] and non-contact water recreation (REC-2); and limited warm freshwater habitat (LWARM). Excepted from municipal and domestic supply (MUN)
003 and S-003	Reach 1B of Chino Creek	Present or Potential: Wildlife habitat (WILD); water contact recreation (REC-1) and non-contact water recreation (REC-2); warm freshwater habitat (WARM); and rare, threatened or endangered species (RARE). Excepted from municipal and domestic supply (MUN)
004	Reach 2 of Chino Creek	Present or Potential: Groundwater recharge (GWR); wildlife habitat (WILD); water contact recreation (REC-1) and non-contact water recreation (REC-2); and limited warm freshwater habitat (LWRM). Excepted from municipal and domestic supply (MUN)
001, 002, 003, 004, S-001, S-002, and S-003	Reach 3 of Santa Ana River within Prado Basin Management Zone	Present or Potential: Agricultural supply (AGR); groundwater recharge (GWR); wildlife habitat (WILD); water contact recreation (REC-1) and non-contact water recreation (REC-2); warm freshwater habitat (WARM); and spawning, reproduction, and development (SPWN). Excepted from municipal and domestic supply (MUN)
001, 002, 003, 004, 005, 006, 007, 008, S-001, S-002, and S-003	Chino North “Max Benefit” GMZ / Chino 1, 2 and 3 “antidegradation” GMZs	Present or Potential: Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PROC).
	Orange GMZ (affected GMZ downstream of discharge points)	Present or Potential: Municipal and domestic water supply (MUN); agricultural supply (AGR); industrial service supply (IND); and industrial process supply (PROC).

[1] Determined to be non-attainable through a Use Attainability Analysis (UAA).

Requirements of this Order implement the Basin Plan.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA 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, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR

criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain federal water quality criteria for priority pollutants.

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

4. **Antidegradation Policy.** Federal regulation 40 CFR 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 Santa Ana Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16.

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

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

7. **Sewage Sludge and Biosolids.** This Order does not authorize any act that results in violation of requirements administered by U.S. EPA to implement 40 CFR 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the

treatment of domestic sewage in a municipal wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 CFR 503 that are under U.S. EPA's enforcement authority.

8. **Pretreatment.** This Order contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act; 40 CFR 35 and 403; and/or Section 2233, Title 23, California Code of Regulations. The Discharger has established an approved regional pretreatment program. The approved pretreatment program and its components, such as Regional Wastewater Ordinance No. 109, local limits (adopted by the Discharger on May 16, 2018), and control mechanisms, among others, are an enforceable condition of this Order.

9. **State Recycled Water Policy.** The State Water Board adopted the Water Quality Control Policy for Recycled Water (Recycled Water Policy) on December 11, 2018 and became effective on April 8, 2019. The purpose of the Recycled Water Policy is to encourage the safe use of recycled water from wastewater sources that meet the definition in California Water Code section 13050(n), in a manner that implements state and federal water quality laws and protects public health and the environment. It provides direction regarding the methodology and appropriate criteria that the State Water Board and Regional Water quality Control Boards (Regional Water Boards) can use when issuing permits for recycled water projects, in a consistent manner, while preserving sufficient authority and flexibility for the Regional Water Boards to address site specific conditions. This policy describes the circumstances under which permittees may enroll under the statewide water reclamation requirements for recycled water use (e.g., State Water Board Order WQ 2016-0068-DDW) or choose an alternate permitting mechanism, such as a master recycling permit. The Santa Ana Water Board has determined that the Discharger is not eligible to enroll under the State Water Board Order WQ 2016-0068-DDW due to site specific considerations, however, this Order is consistent with the Recycled Water Policy.

10. **Toxicity Provisions.** The State Water Board adopted the State Policy for Water Quality Control: Toxicity Provisions (Toxicity Provisions) on December 1, 2020, which were revised on October 5, 2021. The Toxicity Provisions include statewide numeric WQOs for both acute and chronic toxicity and a program of implementation to control toxicity. The provisions provide consistent protection of aquatic life beneficial uses in inland surface waters, enclosed bays, and coastal lagoons and estuaries throughout the state, and protect aquatic habitats and life from the effects of known and unknown toxicants. Section IV.B.2.e. of the Toxicity Provisions, *Chronic Aquatic Toxicity Effluent Limitations*, require that chronic toxicity effluent limitations be included in an NPDES Permit if the POTW is authorized to discharge at a rate equal or greater than 5.0 mgd and is required to have a pretreatment program by the terms of 40 CFR § 403.8 (a). This Order implements the Toxicity Provisions once it becomes effective.

11. **Bacteria Provisions and Variance Policy.** 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 No. 2018-0038, which was approved by OAL on February 4, 2019 and became effective upon USEPA approval on March 22, 2019. The plan adopts statewide bacteria water quality objectives and implementations options to protect California water bodies designated for water contact recreation (REC 1) and establishes E. coli as the sole indicator of pathogens in freshwater. These numeric water quality objectives are already effective statewide and supersede the objectives currently listed in the Basin Plan, except for site specific objectives and narrative water quality objectives. However, for implementation purposes, section IV.E.1 of ISWEBE indicates that where a permit, waste discharge requirements (WDRs), or waiver of a WDRs includes an effluent limitation or discharge requirement derived from a water quality objective, guideline, or other requirement to control bacteria that is more stringent value than the applicable bacteria water quality objective, the bacteria water quality objective shall not be implemented in the permit, WDRs, or waiver of WDRs. Therefore, in issuing waste discharge requirements that assure beneficial use protection, the Santa Ana Water Board must consider not only the established objectives but also whether case-specific circumstances warrant the application of limitations more stringent than those necessary to implement the objectives. Such special consideration applies to discharges of treated sewage to surface waters by Publicly Owned Treatment Works (POTWs) or other entities and the protection of public health and primary contact recreation in those receiving waters (See section IV.C.2.c. of this Attachment F, below).

12. **California Code of Regulations (CCR) Title 22.** Numerical and narrative criteria and wastewater treatment performance standards contained in Division 4 of Title 22 of the CCR are implemented in this Order as water quality standards for reasonable potential analysis (RPA) and stablishing monitoring requirements, as best professional judgement ((BPJ) technology-based effluent limitations, and as water reclamation requirements. Table 64431-A, *"Maximum Contaminant Levels – Inorganic Chemicals,"* Table 64444-A, *"Maximum Contaminant Levels – Organic Chemicals,"* and Table 64449-A, *"Secondary Maximum Contaminant Levels,"* of Division 4, Chapter 15 of CCR's Title 22 lists the maximum contaminant levels (MCLs) at which pollutants may be detected in drinking water. These MCLs are applied in this Order as health-based water quality standards to protect the water quality of receiving waters that have MUN and/or GWR beneficial uses and water quality-based effluent limitations may be derived from MCLs (see section IV.C. of Attachment F). Also, as of March 5, 2021, DDW has listed 35 chemicals for which notification levels (NLs) have been stablished as a health-based advisory levels and the NLs are applied in this Order as a water quality standard for influent and effluent monitoring requirements to assess the threat to beneficial uses of the receiving waters such as MUN and/or GWR. Furthermore, Section 60305, *"Use of Recycled Water for Impoundments,"* of Division 4, Chapter 3, Article 3 of Title 22, is applied as best professional judgement technology-based effluent limitations to protect REC-1 and REC-2 beneficial uses of the receiving waters, which are considered in the Basin Plan as effluent dominated waters and, therefore, as a *nonrestricted recreational impoundment* of recycled water (see section IV.C.2.c. of this Attachment F). The

Water Recycling Criteria contained in sections 60301 through 60355 of Division 4, Chapter 3 of Title 22 is applied in this Order as water reclamation requirements for non-potable reuse (see section IV.C. of this Order and section IV.G. of this Attachment F).

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

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Santa Ana Water Board plans to develop and adopt TMDLs that will specify waste load allocations (WLA) for point sources and load allocations (LAs) for non-point sources, as appropriate.

The U.S. EPA approved the State's 2014 and 2016 CWA section 303(d) list of impaired water bodies on April 6, 2018. The 303(d) list identifies water bodies where water quality standards are not expected to be met after implementation of TBELs by point sources (water quality-limited water bodies).

The 303(d) listings for the receiving waters are presented in Table F-11.

Table F-11. Receiving Water 303(d) Listings

Receiving Water Name	Impairment
Reach 1 of Chino Creek	Nutrients from agricultural and dairy runoff during storm events; indicator bacteria from dairy runoff during storm events
Reach 1B of Chino Creek	Chemical oxygen demand (COD)
Reach 2 of Chino Creek	pH
Reach 1 of Cucamonga Creek	Cadmium (Cd); lead (Pb); copper (Cu); zinc (Zn).
Reach 1 of Mill Creek	Indicator bacteria from dairy runoff during storm events
Reach 3 of the Santa Ana River	Indicator bacteria; copper (Cu); lead (Pb)
Mill Creek (Prado Area)	Nutrients from agricultural and dairy runoff during storm events; indicator bacteria from dairy runoff during storm events; total suspended solids (TSS)
Prado Park Lake	Nutrients from agricultural and dairy runoff during storm events; indicator bacteria from dairy runoff during storm events
Prado Basin Management Zone (PBMZ)	pH

Although a bacteria total maximum daily load (TMDL) has been developed for the Middle Santa Ana River, including Chino Creek, Mill Creek, and Prado Park Lake, the TMDL does not include wasteload allocations (WLAs) for this discharge. To address the pathogen indicators and nutrient impact to these waterbodies, this Order requires that the wastewater discharged from the Facilities be essentially free of pathogens/pathogen indicators and that the wastewaters comply with the applicable Basin Plan's water quality objectives for total inorganic nitrogen (8 mg/L) for surface water discharges. TMDLs have not been developed for the metal constituents that

impact the receiving water quality of Reach 1 of Cucamonga Creek; however, water quality-based effluent limits have been retained from the previous order for Cd, Pb, and Zn at DP-002.

E. Other Plans, Policies and Regulations – Not Applicable

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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

A. Discharge Prohibitions

The discharge prohibitions are based on the Federal Clean Water Act, Basin Plan, State Water Resources Control Board's plans and policies, U.S. EPA guidance and regulations, and the previous waste discharge requirements, Order No. R8-2015-0036, and are consistent with the discharge prohibitions set for other discharges regulated by waste discharge requirements adopted by the Santa Ana Water Board.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing U.S. EPA permit regulations at 40 CFR 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR 133 and/or Best Professional Judgment (BPJ) in accordance with 40 CFR 125.3.

Regulations promulgated in 40 CFR 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in waste discharge requirements based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the U.S. EPA Administrator. Based on this statutory requirement, U.S. EPA developed secondary treatment regulations, which are specified in 40 CFR 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent

quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), percent removal rate, and pH

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

This Facility meets the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, TSS, percent removal rate, and pH. These effluent limitations, except for pH (based on Basin Plan objectives), have been set for secondary treated wastewater discharges at DP-002, DP-003, and DP-004 under 20:1 dilution condition and are summarized in Table F-12 below.

Table F-12. Summary of Applicable Water Quality Criteria

Constituent	Average Weekly (mg/L)	Average Monthly (mg/L)	Average Monthly Removal Rate (%)
Biochemical Oxygen Demand, 5-day @ 20°C (BOD_5)	45	30	85
Total Suspended Solids (TSS)	45	30	85
pH (standard units)	≥6.5	≤8.5	--

DP-001 discharges to Prado Park Lake. This lake is a property of the County of San Bernardino. The County and the Discharger agreed that the Discharger will provide up to 6.6 MGD of tertiary-treated recycled water to the lake for recreation and fishing. There are no other discharges into the lake except stormwater from the tributary drainage area. Overflow from this lake discharges continuously to an unnamed creek, then to Reach 1A of Chino Creek. Consequently, discharges of secondary treated wastewater into the lake under 20:1 dilution is not allowed.

In addition, tertiary treatment is required to protect beneficial uses of the receiving surface waters (without 20:1 dilution condition) and concentration effluent limits for BOD_5 and TSS that are more stringent than federal standards were established in the previous order. The BOD_5 and TSS concentration limits from the previous order, which are summarized in Table F-13 below, are carried over to satisfy anti-backsliding requirements and are based on Best Professional Judgement. The federal secondary treatment standard for pH that ranges from 6 to 9 pH standard units (S.U.) do not apply to the discharge and the Basin Plan's pH objectives shown in Table F-13. below, which are more stringent, apply instead as instantaneous minimum and maximum effluent limitations, respectively.

Table F-13. Summary of Applicable Tertiary Treatment Standards

Constituent	Average Weekly (mg/L)	Average Monthly (mg/L)	Average Monthly Removal Rate (%)
Biochemical Oxygen Demand, 5-day @ 20°C (BOD_5)	30	20	85
Total Suspended Solids (TSS)	30	20	85
pH (standard units)	≥6.5	≤8.5	--

Mass-based effluent limitations, shown in Table 4 of this Order, were determined for each discharge point based on the facility design flow as shown in Table F-1 of this Attachment F, above. For DP-002 the design flow used is the sum of the design flows for RP-1 and RP-4.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

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

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

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

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. **The Basin Plan.** Table F-10, above, lists the beneficial uses of the receiving waters. The Basin Plan specifies narrative and numeric water quality objectives for all inland surface waters, including the receiving waters. Some of those that applicable to these receiving waters are listed in the following table.

Table F-14. Summary of Applicable Water Quality Criteria

Constituents	Basis for Limitations
Ammonia Nitrogen	Ammonia dissociates under certain conditions to the toxic un-ionized form. Thus, nitrogen discharges to the Santa Ana River, Reach 3, can pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The Basin Plan specifies un-ionized ammonia objectives and total ammonia nitrogen effluent limitations for discharges to Chino Creek and Mill Creek. The total ammonia nitrogen effluent limit for discharges to Chino Creek and Mill Creek is 4.5mg/L.
Toxicity	The concentration of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of the Hydrogen Ion concentration in the water. Extreme pH levels can have adverse effects on aquatic biota and can corrode pipes and concrete. The Basin Plan specifies that the pH in inland surface waters shall not be depressed below 6.5, nor raised above 8.5 as a result of controllable water quality factors.
Oil and Grease	Oil and related materials have a high surface tension and are not soluble in water, resulting in odors and visual impacts.
Total Chlorine Residual	Chlorine and its reaction product are toxic to aquatic life. To protect aquatic life, the Basin Plan specifies that for wastewater discharged into inland surface waters, the chlorine residual should not exceed 0.1 mg/L.
Total Dissolved Solids	The Basin Plan specifies a wasteload allocation of 550 mg/L for Total Dissolved Solids for flows up to 80 MGD. TDS limits for recycled water use are based on Basin Plan objectives for the impacted groundwater management zones..
Total Inorganic Nitrogen	Nitrogen discharges to the Santa Ana River pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The TIN limit for surface water discharges is based on the Basin Plan wasteload allocation of 8.0 mg/L for flows up to 80 mgd.

In accordance with 40 CFR 122.45(d), there may be instances in which the basis for a limit for a particular continuous discharge may be impracticable to be stated as a maximum daily, average weekly, or average monthly effluent limitation. The Santa Ana Water Board has determined that it is not practicable to express TDS and TIN effluent limitations as average weekly and average monthly effluent limitations because the TDS and TIN objectives in the Basin Plan were established primarily to protect the underlying groundwater. Consequently, a 12-month average period is believed to be more appropriate.

Effluent limitations for ammonia nitrogen, pH, total chlorine residual, TDS, and TIN are carried forward from the previous Order, R8-2015-0036. Compliance with the effluent limitations for pH and total residual chlorine is determined based on 99% compliance and the most common chlorine

residual concentrations from the chlorine contact basin outlet. The compliance requirements for total residual chlorine account for facility operations and total or partial failure of the dechlorination system.

b. **NTR, CTR and SIP.** The National Toxics Rule (NTR), California Toxics Rule (CTR), and State Implementation Policy (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 to determine the need for effluent limitations for priority and non-priority pollutants.

c. **Requirement to Meet Title 22, Tertiary Treatment.** The State Water Board's Division of Drinking Water (DDW) has found that in most instances, in order to protect the health of members of the public who engage in primary contact recreation in surface waters that receive treated sewage discharges, treatment of the discharges must be provided so as to achieve an approximate 5 log reduction in the virus content of the wastewater. The efficacy of the treatment process in achieving this reduction is reflected, in part, by measurements of total coliform bacteria.

Based on these recommendations and relevant regulations established by DDW in the California Code of Regulations (title 22, Division 4, Chapter 3, Section 60301 et seq.), waste discharge requirements issued by the Santa Ana Water Board to POTWs and other entities for discharges of treated sewage to surface waters include stringent total coliform limitations. The salient point here is that this Order does not include effluent limitations based on the numeric objectives for E. coli that are specified in Table 4-pio of the Basin Plan or the ISWEBE (see section III.C.11. of this Attachment F, above). The Santa Ana Water Board has found that the total coliform limitations are necessary to assure adequate treatment of sewage before discharge to surface waters and thereby, to assure protection of public health and primary contact recreation uses.

Therefore, CCR's title 22, Division 4, Chapter 3, Article 3, § 60305, "Use of Recycled water for impoundments" specifies that recycled water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater (tertiary treated). The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. DDW has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The DDW has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection

guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

Neither the PBMZ nor the Santa Ana River, Reach 3, are "nonrestricted recreational impoundments," nor is "recycled water" being used as a supply source for the PBMZ or the River pursuant to the definitions in Title 22. However, except during major storms, most of the flow in the PBMZ and the River is composed of treated municipal wastewater discharges. The PBMZ and the River are used for water contact recreation and, accordingly, are designated REC-1 (water contact beneficial use). People recreating in the PBMZ and the River face an exposure similar to those coming in contact with reclaimed water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the PBMZ and River as would be required for the use of reclaimed water in a nonrestricted recreational impoundment. Thus, this Order specifies requirements based on tertiary or equivalent treatment.

The Santa Ana Water Board has consulted with the DDW regarding the applicability of the process design standards (specifically filter rates, CT, and modal contact) for discharges of waste to flowing streams. DDW has determined that although compliance with these standards is necessary to protect public health when recycled water is used, compliance with these standards is not necessary to protect public health for discharges into waterbodies that provide dilution of the wastewater, provided the performance standards are consistently met. During periods when the receiving water can provide a 1:1 dilution of the wastewater discharge, the Order provides that the specified filter rates, CT, and modal contact time do not apply to wastewater discharges to surface water. The specified filter rates, CT, and modal contact time applies to recycled water use.

3. **Determining the Need for WQBELs and RPA Results**

In accordance with Section 1.3 of the SIP, the Santa Ana Water Board staff conducted a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The staff analyzed effluent data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBELs are required. The RPA considers criteria from the CTR, the California Code of Regulations (CCR) Title 22's Maximum Contaminant Levels (MCLs), and when applicable, water quality objectives specified in the Basin Plan. Some freshwater metals criteria in the CTR are expressed as a function of total hardness. The metals criteria are equations in which hardness is the variable. The actual numeric value of the criterion is calculated using hardness measurements. The use of a fixed hardness value results in a fixed numerical effluent limit for each metal, thereby simplifying the effluent limitation and

facilitating the determination of compliance. To calculate the metals criteria, the receiving water minimum hardness was used.

Sufficient 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 Santa Ana Water Board to conduct the RPA. Upon review of the data, and if the Santa Ana Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

RPA Results. Based on the RPA, effluent limits for chronic toxicity are required for DP-001, DP-002, DP-003, and DP-004 pursuant to step 7 of section 1.3 of the SIP due to the continual potential synergistic or additive toxic effects of effluent from POTWs on receiving waters and to intermittent chronic toxicity trigger exceedances by the Discharger. Effluent from POTWs is inconsistent and may have a mixture of known and unknown pollutants that could have synergistic or additive toxic effects on receiving waters. The mixture of known and unknown pollutants may come from nonresidential and residential sources in the Discharger's service area. Increased or unknown pollutants could be introduced into the Discharger's POTWs from nonresidential or residential sources in the future that have synergistic or additive toxic effects. Additionally, if a toxic effect is discovered in the receiving water, the results of the whole effluent testing (WET) may be useful for identifying the source of the toxicity. As a result, this Order establishes effluent limitations for chronic toxicity, which consist of a Maximum Daily Effluent Limit and a Median Monthly Effluent Limit (MDEL and MMEL respectively). However, for this permit cycle the MMEL will be substituted with a Median Monthly Effluent Target (MMET) through December 31, 2023, due to reasons explained in section IV.C.5.d. below. Also, the State Water Board adopted the Toxicity Provisions on December 1, 2020 (revised on October 5, 2021) that includes statewide numeric WQOs for both acute and chronic toxicity and section IV.B.2.e. of the Toxicity Provisions, *Chronic Aquatic Toxicity Effluent Limitations*, require that chronic toxicity effluent limitations (MDEL and MMEL) be included in an NPDES Permit if the POTW is authorized to discharge at a rate equal or greater than 5.0 mgd and is required to have a pretreatment program by the terms of 40 CFR § 403.8 (a). As discussed in section III.C.10. of this Attachment F, above, this Order implements the Toxicity Provisions once it becomes effective. The RPA was performed for the priority pollutants and other effluent parameters for which effluent data were available. These data were used in the RPA and are summarized in the following tables.

a. **DP-001.** The priority pollutant 2,3,7,8-TCDD was determined to have reasonable potential to exceed a water quality objective. Consequently, effluent limits for 2,3,7,8-TCDD are included in the Order.

Table F-15. RPA Evaluation – DP-001

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Antimony	µg/L	0.60	6	MCL[2]	No
Arsenic	µg/L	3.0	10	MCL	No
Barium	µg/L	47	1000	MCL	No
Beryllium	µg/L	<0.50	4	MCL	No
Cadmium	µg/L	0.55	3.38	CTR-CCC[3]	No
Chromium (III)	µg/L	[4]	288.50	CTR-CCC	No
Chromium (VI)	µg/L	1.4	11.43	CTR-CCC	No
Copper	µg/L	11.8	13.19	CTR-CCC	No
Lead	µg/L	0.60	5.33	CTR-CCC	No
Mercury	µg/L	<0.025	0.051	CTR-HH[5]	No
Nickel	µg/L	5.0	73.51	CTR-CCC	No
Selenium	µg/L	<2.0	5	CTR-CCC	No
Silver	µg/L	0.29	8.15	CTR-CMC[6]	No
Thallium	µg/L	<1.0	2	MCL	No
Zinc	µg/L	64	168.93	CTR-CCC	No
Cyanide	µg/L	<2.0	5.2	CTR-CCC	No
Asbestos	fibers /L	[2]	7	MCL	No
2,3,7,8-TCDD	µg/L	0.66 E-06	1.4E-08	CTR-HH	Yes
Acrolein	µg/L	<2.0	780	CTR-HH	No
Acrylonitrile	µg/L	0.26	0.66	CTR-HH	No
Benzene	µg/L	<1.0	1	MCL	No
Bromoform	µg/L	2.2	360	CTR-HH	No
Carbon Tetrachloride	µg/L	<0.50	0.5	MCL	No
Chlorobenzene	µg/L	<1.0	70	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Chlorodibromomethane	µg/L	12	34	CTR-HH	No
Chloroethane	µg/L	<1.0	NC[7]		No
2-Chloroethylvinyl Ether	µg/L	<1.0	NC		No
Chloroform	µg/L	122	NC		No
Dichlorobromomethane	µg/L	36	46	CTR-HH	No
1,1-Dichloroethane	µg/L	<0.50	5	MCL	No
1,2-Dichloroethane	µg/L	<0.50	0.5	MCL	No
1,1-Dichloroethylene	µg/L	<1.0	3.2	CTR-HH	No
1,2-Dichloropropane	µg/L	<0.50	5	MCL	No
1,3-Dichloropropylene	µg/L	<0.50	0.5	MCL	No
Ethylbenzene	µg/L	<1.0	300	MCL	No
Methyl Bromide	µg/L	<1.0	4,000	CTR-HH	No
Methyl Chloride	µg/L	<1.0	NC		No
Methylene Chloride	µg/L	<1.0	5	MCL	No
1,1,2,2-Tetrachloroethane	µg/L	<0.50	1	MCL	No
Tetrachloroethylene	µg/L	<1.0	5	MCL	No
Toluene	µg/L	<1.0	150	MCL	No
Xylenes	µg/L	[2]	1750	MCL	No
1,2-Trans-Dichloroethylene	µg/L	<0.50	10	MCL	No
1,2-Cis-Dichloroethylene	µg/L	[2]	6	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
1,1,1-Trichloroethane	µg/L	<1.0	200	MCL	No
1,1,2-Trichloroethane	µg/L	<1.0	5	MCL	No
Trichloroethylene	µg/L	<1.0	5	MCL	No
Vinyl Chloride	µg/L	<0.50	0.5	MCL	No
2-Chlorophenol	µg/L	<1.0	400	CTR-HH	No
2,4-Dichlorophenol	µg/L	<2.0	790	CTR-HH	No
2,4-Dimethylphenol	µg/L	<1.0	2,300	CTR-HH	No
4,6-Dinitro-2-Methylphenol	µg/L	<2.0	765	CTR-HH	No
2,4-Dinitrophenol	µg/L	<3.0	14,000	CTR-HH	No
2-Nitrophenol	µg/L	<1.0	NC		No
4-Nitrophenol	µg/L	<3.0	NC		No
3-Methyl-4-Chlorophenol	µg/L	<1.0	NC		No
Pentachlorophenol	µg/L	<2.0	1	MCL	No
Phenol	µg/L	<1.0	4,600,000	CTR-HH	No
2,4,6-Trichlorophenol	µg/L	<1.0	6.5	CTR-HH	No
Acenaphthene	µg/L	<1.0	2,700	CTR-HH	No
Acenaphthylene	µg/L	<1.0	NC		No
Anthracene	µg/L	<1.0	110,000	CTR-HH	No
Benzidine	µg/L	<5.0	0.00054	CTR-HH	No
Benzo(a)Anthracene	µg/L	<5.0	0.049	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Benzo(a)Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(b)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(ghi)Perylene	µg/L	<2.0	NC		No
Benzo(k)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Bis(2-Chloroethoxy) Methane	µg/L	<2.0	NC		No
Bis(2-Chloroethyl) Ether	µg/L	<1.0	1.4	CTR-HH	No
Bis(2-Chloroisopropyl) Ether	µg/L	<1.0	170,000	CTR-HH	No
Bis(2-Ethylhexyl) Phthalate	µg/L	3.0	4	MCL	No
4-Bromophenyl Phenyl Ether	µg/L	<1.0	NC		No
Butylbenzyl Phthalate	µg/L	<1.0	5,200	CTR-HH	No
2-Chloronaphthalene	µg/L	<1.0	4,300	CTR-HH	No
4-Chlorophenyl Phenyl Ether	µg/L	<1.0	NC		No
Chrysene	µg/L	<1.0	0.049	CTR-HH	No
Dibenzo(a,h)Anthracene	µg/L	<1.0	0.049	CTR-HH	No
1,2-Dichlorobenzene	µg/L	<1.0	600	MCL	No
1,3-Dichlorobenzene	µg/L	<1.0	2,600	CTR-HH	No
1,4-Dichlorobenzene	µg/L	<1.0	5	MCL	No
3,3 Dichlorobenzidine	µg/L	<5.0	0.077	CTR-HH	No
Diethyl Phthalate	µg/L	<2.0	120,000	CTR-HH	No
Dimethyl Phthalate	µg/L	<1.0	2,900,000	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Di-n-Butyl Phthalate	µg/L	<1.0	12,000	CTR-HH	No
2,4-Dinitrotoluene	µg/L	<1.0	9.1	CTR-HH	No
2,6-Dinitrotoluene	µg/L	<2.0	NC		No
Di-n-Octyl Phthalate	µg/L	<1.0	NC		No
1,2-Diphenylhydrazine	µg/L	<1.0	0.54	CTR-HH	No
Fluoranthene	µg/L	<1.0	370	CTR-HH	No
Fluorene	µg/L	<1.0	14,000	CTR-HH	No
Hexachlorobenzene	µg/L	<1.0	0.00077	CTR-HH	No
Hexachlorobutadiene	µg/L	<1.0	50	CTR-HH	No
Hexachlorocyclopentadiene	µg/L	<1.0	50	MCL	No
Hexachloroethane	µg/L	<1.0	8.9	CTR-HH	No
Indeno(1,2,3-cd) Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Isophorone	µg/L	<1.0	600	CTR-HH	No
Naphthalene	µg/L	<1.0	NC		No
Nitrobenzene	µg/L	<1.0	1,900	CTR-HH	No
N-Nitrosodimethylamine	µg/L	<1.0	8.1	CTR-HH	No
N-Nitrosodi-n-Propylamine	µg/L	<1.0	1.4	CTR-HH	No
N-Nitrosodiphenylamine	µg/L	<1.0	16	CTR-HH	No
Phenanthrene	µg/L	<1.0	NC		No
Pyrene	µg/L	<1.0	11,000	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
1,2,4-Trichlorobenzene	µg/L	<1.0	5	MCL	No
Aldrin	µg/L	<0.0040	0.00014	CTR-HH	No
alpha-BHC	µg/L	<0.0080	0.013	CTR-HH	No
beta-BHC	µg/L	<0.0050	0.046	CTR-HH	No
gamma-BHC	µg/L	<0.0070	0.063	CTR-HH	No
delta-BHC	µg/L	<0.010	NC		No
Chlordane	µg/L	<0.10	0.00059	CTR-HH	No
4,4'-DDT	µg/L	<0.0080	0.00059	CTR-HH	No
4,4'-DDE	µg/L	<0.0060	0.00059	CTR-HH	No
4,4'-DDD	µg/L	<0.0060	0.00084	CTR-HH	No
Dieldrin	µg/L	<0.0060	0.00014	CTR-HH	No
alpha-Endosulfan	µg/L	<0.010	0.056	CTR-CCC	No
beta-Endosulfan	µg/L	<0.0070	0.056	CTR-CCC	No
Endosulfan Sulfate	µg/L	<0.0050	240	CTR-HH	No
Endrin	µg/L	<0.010	0.036	CTR-CCC	No
Endrin Aldehyde	µg/L	<0.010	0.81	CTR-HH	No
Heptachlor	µg/L	<0.0060	0.00001	MCL	No
Heptachlor Epoxide	µg/L	<0.0070	0.00001	MCL	No
PCBs	µg/L	<0.50	0.00017	CTR-HH	No
Toxaphene	µg/L	<0.050	0.0002	CTR-HH	No

[1] The minimum receiving water hardness value of 150 mg/L at Monitoring Location M-003 (during the period from November 2015 to August 2021) was used to determine certain metals criteria.

[2] MCL means DDW's Maximum Contaminant Level (Title 22 CCR).

[3] CTR-CCC means CTR's Criterion Continuous Concentration for Freshwater.

[4] No data available.

[5] CTR-HH means CTR's Human Health for Consumption of Organisms Only.

[6] CTR-CMC means CTR's Criterion Maximum Concentration for Freshwater.

[7] NC means no criteria was available for the parameter

b. **DP-002.** The priority pollutant Total Selenium was determined to have reasonable potential to exceed water quality objectives based on CTR criteria. Also, effluent parameters Bis (2-Ethylhexyl) Phthalate and carbon tetrachloride were determined to exceed California Code of Regulations Title 22's Maximum Contaminant Levels (MCLs), which were applied to protect groundwater recharge beneficial use. Consequently, effluent limits for Bis (2-Ethylhexyl) Phthalate, Total Selenium, and carbon tetrachloride are included in the Order. In addition, this Order establishes effluent limitations for copper, cadmium, lead, and zinc to protect the waterbody, as it is listed as being impaired by copper, cadmium, lead, and zinc.

Table F-16. RPA Evaluation – DP-002

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Antimony	µg/L	1.0	6	MCL[2]	No
Arsenic	µg/L	2.0	10	MCL	No
Barium	µg/L	24	1000	MCL	No
Beryllium	µg/L	<0.50	4	MCL	No
Cadmium	µg/L	<0.25	2.21	CTR-CCC[3]	Yes[4]
Chromium (III)	µg/L	2	185	CTR-CCC	No
Chromium (VI)	µg/L	2.2	11.43	CTR-CCC	No
Copper	µg/L	7.7	8.28	CTR-CCC	Yes[4]
Lead	µg/L	<0.50	2.66	CTR-CCC	Yes[4]
Mercury	µg/L	0.037	0.051	CTR-HH[5]	No
Nickel	µg/L	14	46	CTR-CCC	No
Selenium	µg/L	<2.0	5	CTR-CCC	Yes[6]
Silver	µg/L	0.74	3.19	CTR-CMC[7]	No
Thallium	µg/L	<1.0	2	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Zinc	µg/L	54	106	CTR-CCC	Yes[4]
Cyanide	µg/L	3.0	5.2	CTR-CCC	No
Asbestos	fibers /L	<0.2	7	MCL	No
2,3,7,8-TCDD	µg/L	<2.71E-06	1.4E-08	CTR-HH	No
Acrolein	µg/L	<2.0	780	CTR-HH	No
Acrylonitrile	µg/L	0.57	0.66	CTR-HH	No
Benzene	µg/L	<1.0	1	MCL	No
Bromoform	µg/L	<0.50	360	CTR-HH	No
Carbon Tetrachloride	µg/L	2.2	0.5	MCL	Yes[8]
Chlorobenzene	µg/L	<1.0	70	MCL	No
Chlorodibromomethane	µg/L	9.0	34	CTR-HH	No
Chloroethane	µg/L	<1.0	NC[9]	--	No
2-Chloroethylvinyl Ether	µg/L	<1.0	NC	--	No
Chloroform	µg/L	90	NC	--	No
Dichlorobromomethane	µg/L	31	46	CTR-HH	No
1,1-Dichloroethane	µg/L	<0.50	5	MCL	No
1,2-Dichloroethane	µg/L	<0.50	0.5	MCL	No
1,1-Dichloroethylene	µg/L	<1.0	3.2	CTR-HH	No
1,2-Dichloropropane	µg/L	<0.50	5	MCL	No
1,3-Dichloropropylene	µg/L	<0.5	0.5	MCL	No
Ethylbenzene	µg/L	<1.0	300	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Methyl Bromide	µg/L	<1.0	4,000	CTR-HH	No
Methyl Chloride	µg/L	<1.0	NC	--	No
Methylene Chloride	µg/L	1.0	5	MCL	No
1,1,2,2-Tetrachloroethane	µg/L	<0.50	1	MCL	No
Tetrachloroethylene	µg/L	<1.0	5	MCL	No
Toluene	µg/L	<1.0	150	MCL	No
Xylenes	µg/L	<0.5	1750	MCL	No
1,2-Trans-Dichloroethylene	µg/L	<0.50	10	MCL	No
1,2-Cis-Dichloroethylene	µg/L	<0.5	6	MCL	No
1,1,1-Trichloroethane	µg/L	<1.0	200	MCL	No
1,1,2-Trichloroethane	µg/L	<1.0	5	MCL	No
Trichloroethylene	µg/L	<1.0	5	MCL	No
Vinyl Chloride	µg/L	<0.50	0.5	MCL	No
2-Chlorophenol	µg/L	<1.0	400	CTR-HH	No
2,4-Dichlorophenol	µg/L	<2.0	790	CTR-HH	No
2,4-Dimethylphenol	µg/L	<1.0	2,300	CTR-HH	No
4,6-Dinitro-2-Methylphenol	µg/L	<1.0	765	CTR-HH	No
2,4-Dinitrophenol	µg/L	<3.0	14,000	CTR-HH	No
2-Nitrophenol	µg/L	<1.0	NC	--	No
4-Nitrophenol	µg/L	<3.0	NC	--	No
3-Methyl-4-Chlorophenol	µg/L	<1.0	NC	--	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Pentachlorophenol	µg/L	<1.0	1	MCL	No
Phenol	µg/L	<1.0	4,600,000	CTR-HH	No
2,4,6-Trichlorophenol	µg/L	<1.0	6.5	CTR-HH	No
Acenaphthene	µg/L	<1.0	2,700	CTR-HH	No
Acenaphthylene	µg/L	<1.0	NC	--	No
Anthracene	µg/L	<1.0	110,000	CTR-HH	No
Benzidine	µg/L	<5.0	0.00054	CTR-HH	No
Benzo(a)Anthracene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(a)Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(b)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(ghi)Perylene	µg/L	<1.0	NC	--	No
Benzo(k)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Bis(2-Chloroethoxy) Methane	µg/L	<1.0	NC	--	No
Bis(2-Chloroethyl) Ether	µg/L	<1.0	1.4	CTR-HH	No
Bis(2-Chloroisopropyl) Ether	µg/L	<1.0	170,000	CTR-HH	No
Bis(2-Ethylhexyl) Phthalate	µg/L	9.0	4	MCL	Yes[8]
4-Bromophenyl Phenyl Ether	µg/L	<1.0	NC	--	No
Butylbenzyl Phthalate	µg/L	2.0	5,200	CTR-HH	No
2-Chloronaphthalene	µg/L	1.0	4,300	CTR-HH	No
4-Chlorophenyl Phenyl Ether	µg/L	<1.0	NC	--	No
Chrysene	µg/L	<1.0	0.049	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Dibenzo(a,h)Anthracene	µg/L	<1.0	0.049	CTR-HH	No
1,2-Dichlorobenzene	µg/L	<1.0	600	MCL	No
1,3-Dichlorobenzene	µg/L	<1.0	2,600	CTR-HH	No
1,4-Dichlorobenzene	µg/L	<1.0	5	MCL	No
3,3 Dichlorobenzidine	µg/L	<5.0	0.077	CTR-HH	No
Diethyl Phthalate	µg/L	<2.0	120,000	CTR-HH	No
Dimethyl Phthalate	µg/L	<1.0	2,900,000	CTR-HH	No
Di-n-Butyl Phthalate	µg/L	<1.0	12,000	CTR-HH	No
2,4-Dinitrotoluene	µg/L	<1.0	9.1	CTR-HH	No
2,6-Dinitrotoluene	µg/L	<1.0	NC	--	No
Di-n-Octyl Phthalate	µg/L	<1.0	NC	--	No
1,2-Diphenylhydrazine	µg/L	<1.0	0.54	CTR-HH	No
Fluoranthene	µg/L	<1.0	370	CTR-HH	No
Fluorene	µg/L	<1.0	14,000	CTR-HH	No
Hexachlorobenzene	µg/L	<1.0	0.00077	CTR-HH	No
Hexachlorobutadiene	µg/L	<1.0	50	CTR-HH	No
Hexachlorocyclopentadiene	µg/L	<1.0	50	MCL	No
Hexachloroethane	µg/L	<1.0	8.9	CTR-HH	No
Indeno(1,2,3-cd) Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Isophorone	µg/L	<1.0	600	CTR-HH	No
Naphthalene	µg/L	<1.0	NC	--	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Nitrobenzene	µg/L	<1.0	1,900	CTR-HH	No
N-Nitrosodimethylamine	µg/L	<1.0	8.1	CTR-HH	No
N-Nitrosodi-n-Propylamine	µg/L	<1.0	1.4	CTR-HH	No
N-Nitrosodiphenylamine	µg/L	<1.0	16	CTR-HH	No
Phenanthrene	µg/L	<1.0	NC	--	No
Pyrene	µg/L	<1.0	11,000	CTR-HH	No
1,2,4-Trichlorobenzene	µg/L	1.0	5	MCL	No
Aldrin	µg/L	<0.0040	0.00014	CTR-HH	No
alpha-BHC	µg/L	<0.0080	0.013	CTR-HH	No
beta-BHC	µg/L	<0.0050	0.046	CTR-HH	No
gamma-BHC	µg/L	<0.0070	0.063	CTR-HH	No
delta-BHC	µg/L	<0.010	NC	--	No
Chlordane	µg/L	<0.10	0.00059	CTR-HH	No
4,4'-DDT	µg/L	<0.0080	0.00059	CTR-HH	No
4,4'-DDE	µg/L	<0.0060	0.00059	CTR-HH	No
4,4'-DDD	µg/L	<0.0060	0.00084	CTR-HH	No
Dieldrin	µg/L	<0.0060	0.00014	CTR-HH	No
alpha-Endosulfan	µg/L	<0.010	0.056	CTR-CCC	No
beta-Endosulfan	µg/L	<0.0070	0.056	CTR-CCC	No
Endosulfan Sulfate	µg/L	<0.0050	240	CTR-HH	No
Endrin	µg/L	<0.010	0.036	CTR-CCC	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Endrin Aldehyde	µg/L	<0.010	0.81	CTR-HH	No
Heptachlor	µg/L	<0.006	0.01	MCL	No
Heptachlor Epoxide	µg/L	<0.007	0.01	MCL	No
PCBs	µg/L	<0.50	0.00017	CTR-HH	No
Toxaphene	µg/L	<0.050	0.0002	CTR-CCC	No

[1] The minimum receiving water hardness value of 87 mg/L at Monitoring Location R-002U (during the period from November 2015 to August 2021) was used to determine certain metals criteria.

[2] MCL means DDW's Maximum Contaminant Level (Title 22 CCR).

[3] CTR-CCC means CTR's Criterion Continuous Concentration for Freshwater.

[4] Effluent limitations for copper, cadmium, lead, and zinc are required because the waterbody is listed on the 303(d) List for impairment by copper, cadmium, lead, and zinc.

[5] CTR-HH means CTR's Human Health for Consumption of Organisms Only.

[6] Reasonable potential determination is based on the background data value of 13 µg/L at R-002U (upstream receiving water monitoring location station).

[7] CTR-CMC means CTR's Criterion Maximum Concentration for Freshwater.

[8] Effluent data collected at M-001B and M-002A, during the period of November 2015 to August 2021, was evaluated for DP-002.

[9] NC means no criteria was available for the parameter.

c. **DP-003.** The priority pollutants copper, lead, and 2,3,7,8-TCDD were determined to have reasonable potential to exceed water quality objectives. Consequently, effluent limits for copper, lead, and 2,3,7,8-TCDD are included in the Order.

Table F-17. RPA Evaluation – DP-003

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Antimony	µg/L	0.60	6	MCL[2]	No
Arsenic	µg/L	3.0	10	MCL	No
Barium	µg/L	47	1000	MCL	No
Beryllium	µg/L	<0.50	4	MCL	No
Cadmium	µg/L	0.55	2.93	CTR-CCC[3]	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Chromium (III)	µg/L	[4]	248	CTR-CCC	No
Chromium (VI)	µg/L	1.4	11.43	CTR-CCC	No
Copper	µg/L	11.8	11.29	CTR-CCC	Yes
Lead	µg/L	0.60	4.23	CTR-CCC	Yes[5]
Mercury	µg/L	<0.025	0.051	CTR-HH[6]	No
Nickel	µg/L	5.0	63	CTR-CCC	No
Selenium	µg/L	<2.0	5	CTR-CCC	No
Silver	µg/L	0.29	5.96	CTR-CMC[7]	No
Thallium	µg/L	<1.0	2	MCL	No
Zinc	µg/L	64	145	CTR-CCC	No
Cyanide	µg/L	<2.0	5.2	CTR-CCC	No
Asbestos	fibers /L	[4]	7	MCL	No
2,3,7,8-TCDD	µg/L	0.66 E-06	1.4E-08	CTR-HH	Yes
Acrolein	µg/L	<2.0	780	CTR-HH	No
Acrylonitrile	µg/L	0.26	0.66	CTR-HH	No
Benzene	µg/L	<1.0	1	MCL	No
Bromoform	µg/L	2.2	360	CTR-HH	No
Carbon Tetrachloride	µg/L	<0.50	0.5	MCL	No
Chlorobenzene	µg/L	<1.0	70	MCL	No
Chlorodibromomethane	µg/L	12	34	CTR-HH	No
Chloroethane	µg/L	<1.0	NC[8]	--	No
2-Chloroethylvinyl Ether	µg/L	<1.0	NC	--	No
Chloroform	µg/L	122	NC	--	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Dichlorobromomethane	µg/L	36	46	CTR-HH	No
1,1-Dichloroethane	µg/L	<0.50	5	MCL	No
1,2-Dichloroethane	µg/L	<0.50	0.5	MCL	No
1,1-Dichloroethylene	µg/L	<1.0	3.2	CTR-HH	No
1,2-Dichloropropane	µg/L	<0.50	5	MCL	No
1,3-Dichloropropylene	µg/L	<0.50	0.5	MCL	No
Ethylbenzene	µg/L	<1.0	300	MCL	No
Methyl Bromide	µg/L	<1.0	4,000	CTR-HH	No
Methyl Chloride	µg/L	<1.0	NC	--	No
Methylene Chloride	µg/L	<1.0	5	MCL	No
1,1,2,2-Tetrachloroethane	µg/L	<0.50	1	MCL	No
Tetrachloroethylene	µg/L	<1.0	5	MCL	No
Toluene	µg/L	<1.0	150	MCL	No
1,2-Trans-Dichloroethylene	µg/L	<0.50	10	MCL	No
1,1,1-Trichloroethane	µg/L	<1.0	200	MCL	No
1,1,2-Trichloroethane	µg/L	<1.0	5	MCL	No
Trichloroethylene	µg/L	<1.0	5	MCL	No
Vinyl Chloride	µg/L	<0.50	0.5	MCL	No
2-Chlorophenol	µg/L	<1.0	400	CTR-HH	No
2,4-Dichlorophenol	µg/L	<2.0	790	CTR-HH	No
2,4-Dimethylphenol	µg/L	<1.0	2,300	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
4,6-Dinitro-2-Methylphenol	µg/L	<2.0	765	CTR-HH	No
2,4-Dinitrophenol	µg/L	<3.0	14,000	CTR-HH	No
2-Nitrophenol	µg/L	<1.0	NC	--	No
4-Nitrophenol	µg/L	<3.0	NC	--	No
3-Methyl-4-Chlorophenol	µg/L	<1.0	NC	--	No
Pentachlorophenol	µg/L	<2.0	1	MCL	No
Phenol	µg/L	<1.0	4,600,000	CTR-HH	No
2,4,6-Trichlorophenol	µg/L	<1.0	6.5	CTR-HH	No
Acenaphthene	µg/L	<1.0	2,700	CTR-HH	No
Acenaphthylene	µg/L	<1.0	NC	--	No
Anthracene	µg/L	<1.0	110,000	CTR-HH	No
Benzidine	µg/L	<5.0	0.00054	CTR-HH	No
Benzo(a)Anthracene	µg/L	<5.0	0.049	CTR-HH	No
Benzo(a)Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(b)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Benzo(ghi)Perylene	µg/L	<2.0	NC	--	No
Benzo(k)Fluoranthene	µg/L	<1.0	0.049	CTR-HH	No
Bis(2-Chloroethoxy) Methane	µg/L	<2.0	NC	--	No
Bis(2-Chloroethyl) Ether	µg/L	<1.0	1.4	CTR-HH	No
Bis(2-Chloroisopropyl) Ether	µg/L	<1.0	170,000	CTR-HH	No
Bis(2-Ethylhexyl) Phthalate	µg/L	3.0	4.0	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
4-Bromophenyl Phenyl Ether	µg/L	<1.0	NC	--	No
Butylbenzyl Phthalate	µg/L	<1.0	5,200	CTR-HH	No
2-Chloronaphthalene	µg/L	<1.0	4,300	CTR-HH	No
4-Chlorophenyl Phenyl Ether	µg/L	<1.0	NC	--	No
Chrysene	µg/L	<1.0	0.049	CTR-HH	No
Dibenzo(a,h)Anthracene	µg/L	<1.0	0.049	CTR-HH	No
1,2-Dichlorobenzene	µg/L	<1.0	600	MCL	No
1,3-Dichlorobenzene	µg/L	<1.0	2,600	CTR-HH	No
1,4-Dichlorobenzene	µg/L	<1.0	5	MCL	No
3,3 Dichlorobenzidine	µg/L	<5.0	0.077	CTR-HH	No
Diethyl Phthalate	µg/L	<2.0	120,000	CTR-HH	No
Dimethyl Phthalate	µg/L	<1.0	2,900,000	CTR-HH	No
Di-n-Butyl Phthalate	µg/L	<1.0	12,000	CTR-HH	No
2,4-Dinitrotoluene	µg/L	<1.0	9.1	CTR-HH	No
2,6-Dinitrotoluene	µg/L	<2.0	NC	--	No
Di-n-Octyl Phthalate	µg/L	<1.0	NC	--	No
1,2-Diphenylhydrazine	µg/L	<1.0	0.54	CTR-HH	No
Fluoranthene	µg/L	<1.0	370	CTR-HH	No
Fluorene	µg/L	<1.0	14,000	CTR-HH	No
Hexachlorobenzene	µg/L	<1.0	0.00077	CTR-HH	No
Hexachlorobutadiene	µg/L	<1.0	50	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Hexachlorocyclopentadiene	µg/L	<1.0	50	MCL	No
Hexachloroethane	µg/L	<1.0	8.9	CTR-HH	No
Indeno(1,2,3-cd) Pyrene	µg/L	<1.0	0.049	CTR-HH	No
Isophorone	µg/L	<1.0	600	CTR-HH	No
Naphthalene	µg/L	<1.0	NC	--	No
Nitrobenzene	µg/L	<1.0	1,900	CTR-HH	No
N-Nitrosodimethylamine	µg/L	<1.0	8.1	CTR-HH	No
N-Nitrosodi-n-Propylamine	µg/L	<1.0	1.4	CTR-HH	No
N-Nitrosodiphenylamine	µg/L	<1.0	16	CTR-HH	No
Phenanthrene	µg/L	<1.0	NC	--	No
Pyrene	µg/L	<1.0	11,000	CTR-HH	No
1,2,4-Trichlorobenzene	µg/L	<1.0	5	MCL	No
Aldrin	µg/L	<0.0040	0.00014	CTR-HH	No
alpha-BHC	µg/L	<0.0080	0.013	CTR-HH	No
beta-BHC	µg/L	<0.0050	0.046	CTR-HH	No
gamma-BHC	µg/L	<0.0070	0.063	CTR-HH	No
delta-BHC	µg/L	<0.010	NC	--	No
Chlordane	µg/L	<0.10	0.00059	CTR-HH	No
4,4'-DDT	µg/L	<0.0080	0.00059	CTR-HH	No
4,4'-DDE	µg/L	<0.0060	0.00059	CTR-HH	No
4,4'-DDD	µg/L	<0.0060	0.00084	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Dieldrin	µg/L	<0.0060	0.00014	CTR-HH	No
alpha-Endosulfan	µg/L	<0.010	0.056	CTR-CCC	No
beta-Endosulfan	µg/L	<0.0070	0.056	CTR-CCC	No
Endosulfan Sulfate	µg/L	<0.0050	240	CTR-HH	No
Endrin	µg/L	<0.010	0.036	CTR-CCC	No
Endrin Aldehyde	µg/L	<0.010	0.81	CTR-HH	No
Heptachlor	µg/L	<0.0060	0.01	MCL	No
Heptachlor Epoxide	µg/L	<0.0070	0.01	MCL	No
PCBs sum	µg/L	<0.50	0.00017	CTR-HH	No
Toxaphene	µg/L	<0.050	0.0002	CTR-CCC	No

[1] The minimum receiving water hardness value of 125 mg/L at Monitoring Location R-004U (during the period from November 2015 to April 2020) was used to determine certain metals criteria.

[2] MCL means DDW's Maximum Contaminant Level (Title 22 CCR).

[3] CTR-CCC means CTR's Criterion Continuous Concentration for Freshwater.

[4] No data available.

[5] Reasonable potential determination was based on background data values of 5.1 µg/L at R-004U and 9.8 µg/L at R-003U.

[6] CTR-HH means CTR's Human Health for Consumption of Organisms Only.

[7] CTR-CMC means CTR's Criterion Maximum Concentration for Freshwater.

[8] NC means no criteria was available for the parameter.

d. **DP-004.** The priority pollutants copper, lead, chlorodibromomethane, dichlorobromomethane, and Pentachlorophenol were determined to have reasonable potential to exceed water quality objectives. Consequently, effluent limits for copper, lead, chlorodibromomethane, dichlorobromomethane, and pentachlorophenol are included in the Order.

Table F-18. RPA Evaluation – DP-004

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Antimony	µg/L	0.60	6	MCL[2]	No
Arsenic	µg/L	3.0	10	MCL	No
Barium	µg/L	22	1000	MCL	No
Beryllium	µg/L	<0.50	4	MCL	No
Cadmium	µg/L	<0.25	2.93	CTR-CCC[3]	No
Chromium (III)	µg/L	[4]	248	CTR-CCC	No
Chromium (VI)	µg/L	1.2	11.43	CTR-CCC	No
Copper	µg/L	10.6	11.29	CTR-CCC	Yes[5]
Lead	µg/L	<0.50	4.23	CTR-CCC	Yes[6]
Mercury	µg/L	<0.025	0.051	CTR-HH[7]	No
Nickel	µg/L	4.0	63	CTR-CCC	No
Selenium	µg/L	2.0	5	CTR-CCC	No
Silver	µg/L	<0.25	5.96	CTR-CMC[8]	No
Thallium	µg/L	<1.0	2	MCL	No
Zinc	µg/L	92	145	CTR-CCC	No
Cyanide	µg/L	2.0	22	CTR-CCC	No
Asbestos	fibers /L	[4]	7	MCL	No
2,3,7,8-TCDD	µg/L	<2.71E-06	1.4E-08	CTR-HH	No
Acrolein	µg/L	<2.0	780	CTR-HH	No
Acrylonitrile	µg/L	0.42	0.66	CTR-HH	No
Benzene	µg/L	<0.50	1	MCL	No
Bromoform	µg/L	61	360	CTR-HH	No
Carbon Tetrachloride	µg/L	<0.50	0.5	MCL	No
Chlorobenzene	µg/L	<1.0	70	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Chlorodibromomethane	µg/L	94	34	CTR-HH	Yes
Chloroethane	µg/L	<1.0	NC[9]	--	No
2-Chloroethylvinyl Ether	µg/L	<1.0	NC	--	No
Chloroform	µg/L	93	NC	--	No
Dichlorobromomethane	µg/L	58	46	CTR-HH	Yes
1,1-Dichloroethane	µg/L	<0.50	5	MCL	No
1,2-Dichloroethane	µg/L	<0.50	0.5	MCL	No
1,1-Dichloroethylene	µg/L	<1.0	3.2	CTR-HH	No
1,2-Dichloropropane	µg/L	<0.50	5	MCL	No
1,3-Dichloropropylene	µg/L	<0.50	0.5	MCL	No
Ethylbenzene	µg/L	<1.0	300	MCL	No
Methyl Bromide	µg/L	<1.0	4,000	CTR-HH	No
Methyl Chloride	µg/L	<1.0	NC	--	No
Methylene Chloride	µg/L	<1.0	5	MCL	No
1,1,2,2-Tetrachloroethane	µg/L	<0.50	1	MCL	No
Tetrachloroethylene	µg/L	<1.0	5	MCL	No
Toluene	µg/L	1.0	150	MCL	No
1,2-Trans-Dichloroethylene	µg/L	<0.50	10	MCL	No
1,1,1-Trichloroethane	µg/L	<1.0	200	MCL	No
1,1,2-Trichloroethane	µg/L	<1.0	5	MCL	No
Trichloroethylene	µg/L	<1.0	5	MCL	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Vinyl Chloride	µg/L	<0.50	0.5	MCL	No
2-Chlorophenol	µg/L	<0.22	400	CTR-HH	No
2,4-Dichlorophenol	µg/L	<1.1	790	CTR-HH	No
2,4-Dimethylphenol	µg/L	<0.22	2,300	CTR-HH	No
4,6-dinitro-o-cresol (2-methyl-4,6-Dinitrophenol)	µg/L	<1.1	765	CTR-HH	No
2,4-Dinitrophenol	µg/L	<3.0	14,000	CTR-HH	No
2-Nitrophenol	µg/L	<1.0	NC	--	No
4-Nitrophenol	µg/L	<3.0	NC	--	No
3-Methyl-4-Chlorophenol (P-chloro-m-cresol)	µg/L	<1.0	NC	--	No
Pentachlorophenol	µg/L	1.0	1	MCL	Yes[10]
Phenol	µg/L	<1.0	4,600,000	CTR-HH	No
2,4,6-Trichlorophenol	µg/L	<1.0	6.5	CTR-HH	No
Acenaphthene	µg/L	<0.22	2,700	CTR-HH	No
Acenaphthylene	µg/L	<0.22	NC	--	No
Anthracene	µg/L	<0.22	110,000	CTR-HH	No
Benzidine	µg/L	<5.0	0.00054	CTR-HH	No
Benzo(a)Anthracene	µg/L	<0.22	0.049	CTR-HH	No
Benzo(a)Pyrene	µg/L	<0.22	0.049	CTR-HH	No
Benzo(b)Fluoranthene	µg/L	<0.22	0.049	CTR-HH	No
Benzo(ghi)Perylene	µg/L	<0.22	NC	--	No
Benzo(k)Fluoranthene	µg/L	<0.22	0.049	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Bis(2-Chloroethoxy) Methane	µg/L	<0.22	NC	--	No
Bis(2-Chloroethyl) Ether	µg/L	<0.22	1.4	CTR-HH	No
Bis(2-Chloroisopropyl) Ether	µg/L	<0.22	170,000	CTR-HH	No
Bis(2-Ethylhexyl) Phthalate	µg/L	<1.0	4.0	MCL	No
4-Bromophenyl Phenyl Ether	µg/L	<0.22	NC	--	No
Butylbenzyl Phthalate	µg/L	<1.0	5,200	CTR-HH	No
2-Chloronaphthalene	µg/L	<0.22	4,300	CTR-HH	No
4-Chlorophenyl Phenyl Ether	µg/L	<0.22	NC	--	No
Chrysene	µg/L	<0.22	0.049	CTR-HH	No
Dibenzo(a,h)Anthracene	µg/L	<0.22	0.049	CTR-HH	No
1,2-Dichlorobenzene	µg/L	<0.22	600	MCL	No
1,3-Dichlorobenzene	µg/L	<0.22	2,600	CTR-HH	No
1,4-Dichlorobenzene	µg/L	<0.22	5	MCL	No
3,3 Dichlorobenzidine	µg/L	<5.0	0.077	CTR-HH	No
Diethyl Phthalate	µg/L	<2.0	120,000	CTR-HH	No
Dimethyl Phthalate	µg/L	<1.0	2,900,000	CTR-HH	No
Di-n-Butyl Phthalate	µg/L	<1.0	12,000	CTR-HH	No
2,4-Dinitrotoluene	µg/L	<0.22	9.1	CTR-HH	No
2,6-Dinitrotoluene	µg/L	<0.22	NC	--	No
Di-n-Octyl Phthalate	µg/L	<1.0	NC	--	No
1,2-Diphenylhydrazine	µg/L	<0.22	0.54	CTR-HH	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Fluoranthene	µg/L	<0.22	370	CTR-HH	No
Fluorene	µg/L	<0.22	14,000	CTR-HH	No
Hexachlorobenzene	µg/L	<0.22	0.00077	CTR-HH	No
Hexachlorobutadiene	µg/L	<0.22	50	CTR-HH	No
Hexachlorocyclopentadiene	µg/L	<0.22	50	MCL	No
Hexachloroethane	µg/L	<0.22	8.9	CTR-HH	No
Indeno(1,2,3-cd) Pyrene	µg/L	<0.22	0.049	CTR-HH	No
Isophorone	µg/L	<0.22	600	CTR-HH	No
Naphthalene	µg/L	<0.22	NC	--	No
Nitrobenzene	µg/L	<0.22	1,900	CTR-HH	No
N-Nitrosodimethylamine	µg/L	<0.22	8.1	CTR-HH	No
N-Nitrosodi-n-Propylamine	µg/L	<0.22	1.4	CTR-HH	No
N-Nitrosodiphenylamine	µg/L	<0.22	16	CTR-HH	No
Phenanthrene	µg/L	<0.22	NC	--	No
Pyrene	µg/L	<0.22	11,000	CTR-HH	No
1,2,4-Trichlorobenzene	µg/L	<1.0	5	MCL	No
Aldrin	µg/L	<0.0040	0.00014	CTR-HH	No
alpha-BHC	µg/L	<0.0080	0.013	CTR-HH	No
beta-BHC	µg/L	<0.0050	0.046	CTR-HH	No
gamma-BHC	µg/L	<0.0070	0.063	CTR-HH	No
delta-BHC	µg/L	<0.010	NC	--	No

Parameter	Unit	MEC	Selected Criteria[1]	Source of Criteria	Is Effluent Limit Required?
Chlordane	µg/L	<0.10	0.00059	CTR-HH	No
4,4'-DDT	µg/L	<0.0080	0.00059	CTR-HH	No
4,4'-DDE	µg/L	<0.0060	0.00059	CTR-HH	No
4,4'-DDD	µg/L	<0.0060	0.00084	CTR-HH	No
Dieldrin	µg/L	<0.0060	0.00014	CTR-HH	No
alpha-Endosulfan	µg/L	0.050	0.056	CTR-CCC	No
beta-Endosulfan	µg/L	<0.0070	0.056	CTR-CCC	No
Endosulfan Sulfate	µg/L	<0.0050	240	CTR-HH	No
Endrin	µg/L	<0.010	0.036	CTR-CCC	No
Endrin Aldehyde	µg/L	<0.010	0.81	CTR-HH	No
Heptachlor	µg/L	<0.0060	0.01	MCL	No
Heptachlor Epoxide	µg/L	<0.0070	0.01	MCL	No
PCBs sum	µg/L	<0.50	0.00017	CTR-HH	No
Toxaphene	µg/L	<0.050	0.0002	CTR-CCC	No

[1] The minimum receiving water hardness value of 125 mg/L at Monitoring Location R-004U (during the period from November 2015 to April 2020) was used to determine certain metals criteria.

[2] MCL means DDW's Maximum Contaminant Level (Title 22 CCR).

[3] CTR-CCC means CTR's Criterion Continuous Concentration for Freshwater.

[4] No data available.

[5] Reasonable potential determination was based on the background data values of 12 µg/L at R-004U and 16 µg/L at R-003U.

[6] Reasonable potential determination was based on the background data values of 5.2 µg/L at R-004U and 9.8 µg/L at R-003U.

[7] CTR-HH means CTR's Human Health for Consumption of Organisms Only.

[8] CTR-CMC means CTR's Criterion Maximum Concentration for Freshwater.

[9] NC means no criteria was available for the parameter.

[10] Reasonable potential determination is based on the background data value of 2.0 µg/L.

4. **WQBEL Calculations**

For priority pollutants, water quality-based effluent limits are based on monitoring results and the calculation process outlined in Section 1.4 of the California Toxics Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California, which is summarized in the following table.

Table F-19. Criteria Calculation based on CTR and MCLs (µg/L)

CTR Values				Long-Term Average Values			Aquatic Life Limits		Human Health Limits		Permit Limits	
	Freshwater		Human Health									
Constituents	CMC	CCC	Organisms Only	Acute	Chronic	Min.	MDEL	AMEL	MDEL	AMEL	MDEL	AMEL
DP-001												
2,3,7,8-TCDD	--	--	1.4E-08	--	--	--	--	--	2.8E-08	1.4E-08	2.8E-08	1.4E-08
DP-002												
Cadmium	3.86	2.21	--	1.24	1.16	1.16	3.63	1.8	--	--	3.6[1]	1.8[1]
Copper	12.28	8.28	--	7.55	6.44	6.44	10.5	7.7	--	--	10.5	7.7
Lead	68.38	2.66	--	22	1.41	1.41	4.38	2.2	--	--	4.4	2.2
Zinc	106.5	106.5	--	62.8	81	81	106	76	--	--	106	76
Selenium		5			2.6	2.6	8.2	4.1			8.2	4.1
Bis(2-Ethylhexyl) Phthalate	--	--	4[2]	--	--	--	--	--	8	4	8	4
Carbon Tetrachloride			0.5[2]						1.0	0.5	1.0	0.5
DP-003												
Copper	17.27	11.29	--	9.90	8.45	8.45	14.7	10.3	--	--	14.7	10.3
Lead	108.5	4.23		34.81	2.23	2.23	5.33	2.65	--	--	5.3	2.7
2,3,7,8-TCDD	--	--	1.4E-08	--	--	--	--	--	2.8E-08	1.4E-08	2.8E-08	1.4E-08
DP-004												
Chlorodibromomethane	--	--	34	--	--	--	--	--	59	34	59	34
Dichlorobromomethane	--	--	46	--	--	--	--	--	116	46	116[1]	46[1]
Pentachlorophenol	--	--	1[2]	--	--	--	--	--	2	1	2	1
Copper	17.27	11.29		9.90	8.45	8.45	14.7	10.3	--	--	14.7	10.3
Lead	108.5	4.23		34.81	2.23	2.23	5.33	2.65	--	--	5.3	2.7

[1] The limits from the previous order were more stringent. Therefore, the previous limits are retained to satisfy anti-backsliding requirements.

[2] CCR Title 22's Maximum Contaminant Level is the selected criteria (See Table F-15).

5. **Whole Effluent Toxicity (WET)**

a. Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. Because of the nature of discharges into the POTW sewershed, it is possible that toxic constituents could be present in the effluent or could have synergistic or additive effects. The Basin Plan establishes a narrative WQO for toxicity which states that the concentrations of toxic pollutants in the water column, sediments or biota shall not adversely affect beneficial uses. WET tests measure the degree of response of exposed aquatic test organisms to an effluent.

The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion contained in the Clean Water Act and the narrative WQO for toxicity of the Basin Plan, while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. A pollutant at a low concentration could show chronic effects but no acute effects. Thus, chronic toxicity represents a more stringent compliance threshold than acute toxicity.

b. The previous order established a numeric chronic toxicity trigger of 1.0 TUc. In 2010, U.S. EPA endorsed the peer-reviewed Test of Significant Toxicity (TST) hypothesis testing approach in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) as an improved hypothesis-testing tool to evaluate WET data. U.S. EPA concluded that the TST is a superior approach for addressing statistical uncertainty when used in combination with U.S. EPA's toxicity testing methods and is implemented in federal permits issued by EPA Region 9. This Order contains requirements to monitor and evaluate chronic toxicity using U.S. EPA's TST approach at an in-stream waste concentration (IWC) of 100 percent for chronic toxicity, as described in section IV.A.3. of this Order and section V of Attachment E. This Order includes requirements to determine compliance with the narrative chronic toxicity effluent limitation based on the TST approach. Compliance shall be determined based on results of "Pass" and "Percent Effect" <50 as described in section V of Attachment E. To ensure the aggregated impacts of pollutants present within the Discharger's effluent does not result in the presence of toxicity within the receiving water, this Order establishes effluent limitations for chronic toxicity, which consist of a Maximum Daily Effluent Limit and a Median Monthly Effluent Limit (MDEL and MMEL respectively). However, for this permit cycle the MMEL will be substituted with a Median Monthly Effluent Target (MMET) through December 31, 2023, due to reasons explained in section IV.C.5.d. below.

c. This previous order did not specify WET limits but required that if chronic toxicity thresholds were not met, the Discharger would accelerate toxicity

monitoring consistent with the Initial Investigation Toxicity Identification/Reduction Evaluation (IITRE) workplan. If the implemented IITRE failed to identify the cause of, or to rectify, the toxicity, the Discharger was required to implement the more rigorous Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan. The monitoring data for all the Facilities during the past five years (2015-2020) indicated that the monthly trigger of 1 TUc had been exceeded intermittently, warranting an IITRE from January through April 2018 for RP-1. The IITRE concluded that the toxicity was due to excess sodium bisulfite and disinfection byproduct formation with long contact time due to low flow conditions at the discharge point. Section VI.C.2. of the Order specifies the conditions under which the Discharger must implement an IITRE or a TRE/TIE.

d. Also, the State Water Board adopted the Toxicity Provisions on December 1, 2020 (see section III.C.10. of Attachment F) that includes statewide numeric WQOs for both acute and chronic toxicity and section IV.B.2.e. of the Toxicity Provisions, Chronic Aquatic Toxicity Effluent Limitations, require that chronic toxicity effluent limitations be included in an NPDES Permit if the POTW is authorized to discharge at a rate equal or greater than 5.0 mgd and is required to have a pretreatment program by the terms of 40 CFR § 403.8 (a). Also, the State Water Board has contracted with the Southern California Coastal Water Research Project Authority (SCCWRP) to lead a statewide multiyear research project to develop a set of quality assurance recommendations to minimize within-test variability and improve interlaboratory agreement for *Ceriodaphnia dubia* (*C. dubia*) toxicity testing. For this reason, the State Water Board recommends that the MMEL be substituted with a MMET until December 31, 2023, for orders that require the use of *C. dubia* as the most sensitive test species. This Order requires the use of *C. dubia* as most sensitive test species for chronic toxicity testing and, therefore, will replace the MMEL with a MMET through December 31, 2023 and the MMEL will become effective as of January 1, 2024. The MMET is not an effluent limitation and not meeting the MMET does not constitute an effluent limit violation. However, not meeting the MMET may trigger the implementation of a TRE. This Order implements the Toxicity Provisions once it becomes effective.

e. Diamond et al. (2013) examined the side-by-side comparison of No-Observed-Effect-concentration (NOEC) and TST results using California chronic toxicity test data (including data from POTWs) for the West Coast marine methods and test species required under this Order. See Table 1 (method types 1 through 5) on page 1103 in Diamond D, Denton D, Roberts, J, Zheng L. 2013. Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples. Environ Toxicol Chem 32:1101-1108. This comparison shows that while the TST and NOEC statistical approaches perform similarly most of the time, the TST performs better in identifying toxic and nontoxic samples, a desirable characteristic for chronic toxicity testing conducted under this Order. This examination also signals that the test methods' false positive rate (β no higher

than 0.05 at a mean effect of 10%) and false negative rate (α no higher than 0.05 (0.25 for topsmelt) at a mean effect of 25%) are indeed low. This highlights that using the TST in this Order provides increased assurance that statistical error rates are more directly addressed and accounted for in decisions regarding chronic toxicity in the discharge. As a result, the Santa Ana Water Board is exercising its discretion to use the TST statistical approach for this discharge.

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

Later in June 2010, USEPA published a guidance document titled, National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (USEPA 833/R10/003, June 2010), in which they recommended the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to USEPA's WET test methods. Section 9.4.1.2 of USEPA's Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R-02/013, 2002), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints

and is appropriate to use for both freshwater and marine USEPA WET test methods.

The 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.9 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. (USEPA/821/R-02/012, section 12.2.6.2; USEPA/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 [no-observed-effect concentration (NOEC), percent waste giving 50 percent survival of test organisms (lethal concentration 50, LC 50), effects concentration at 25 percent (EC25) were calculated appropriately (USEPA/821/B-00/004)].

USEPA designed its 2000 guidance as a standardized step-by step review process that investigates the causes for ten commonly observed concentration-response patterns and provides for the proper interpretation of the test endpoints derived from these patterns for NOECs, LC 50, and EC25, thereby reducing the number of misclassified test results. The guidance provides one of three determinations based on the review steps: that calculated effect concentrations are reliable and should be reported, that calculated effect concentrations are anomalous and should be explained, or 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, LC 50, and EC25 test results, thereby lowering the chance that a truly non-toxic sample would be misclassified and reported as toxic.

Appropriate interpretation of the measurement result from USEPA's TST statistical approach ("Pass"/"Fail") for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples. Therefore, when using the TST statistical approach, application of USEPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria (TAC) 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 Santa Ana Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

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

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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, with the exception of effluent limitations for chlorodibromomethane at DP-003. Effluent limitations for chlorodibromomethane at DP-003 are discontinued in this Order based on the consideration of new information (i.e., current discharge monitoring data and reasonable potential analysis). This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

2. Antidegradation Policies

Discharges in conformance with the requirements of this Order will not result in a lowering of water quality and therefore conform to antidegradation requirements specified in Resolution No. 68-16, which incorporates the federal antidegradation policy at 40 CFR 131.12. The Discharger is implementing a program to enhance

recycled water use. No lowering of groundwater quality is projected to occur as the result of recycled water use. Where such lowering of water quality may occur with respect to TDS and TIN, the Discharger is required by this Order, to implement an "offset program" to mitigate that water quality effect.

3. **Stringency of Requirements for Individual Pollutants**

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives 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 131.38. The 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 U.S. EPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

E. Interim Effluent Limitations – Not Applicable

F. Land Discharge Specifications – Not Applicable

G. Recycling Specifications

1. Section 13523 of the California Water Code provides that a Santa Ana Water Board, after consulting with and receiving the recommendations from the DDW and any party who has requested in writing to be consulted, and after any necessary hearing, may prescribe water reclamation requirements for the distribution of water which is used or proposed to be used as recycled water, if, in the judgment of the Santa Ana Water Board, such requirements are necessary to protect the public health, safety, or welfare. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide uniform water recycling criteria established by the DDW pursuant to California Water Code Section 13521.
2. Reclamation specifications in this Order are based upon the recycling criteria contained in Title 22, Division 4, Chapter 3, Sections 60301 through 60355, California Code of Regulations and pursuant to the California Water Code Section 13521.
3. Recycled water use sites overlie the Chino North and the Chino 1, 2, and 3 Groundwater Management Zones (GMZs). The TDS limits for recycled water use are based on the water quality objectives for the Chino North and Chino 1,2, and 3 GMZs. The TDS value of 550 mg/L for recycled water use was assumed as part of the development of the maximum benefit objective for the Chino North GMZ

and the maximum benefit program. Implementation of that program, which entails blending of recycled water with other sources of supply (storm water, imported State Project Water) will assure that the TDS objective of the Chino North GMZ is achieved and maintained. If the Santa Ana Water Board finds that the maximum benefit commitments are not satisfied, then the Chino 1, 2 and 3 "antidegradation" management zones and their respective TDS objectives will be applicable. Since the Chino 1, 2 and 3 GMZs lack assimilative capacity for TDS, the TDS limits are the same as the management zone objectives.

4. This Order does not specify a nitrogen limit for recycled water when it is used for irrigation, since it is assumed that all of the nitrogen will be used by plants and the lack of nitrogen in the water that percolates beyond the root zone will not adversely affect water quality.

5. This Order implements the water recycling requirements for indirect potable reuse as specified in DDW's August 17, 2021 letter entitled, "Conditional Acceptance of the Free Chlorine Disinfection for the Inland Empire Utilities Agency at RP-1 and RP-4 WWTP to Comply with Title 22 Requirements (3690001-744)," issued to the Discharger.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan.

B. Groundwater

The receiving groundwater limitations in the proposed Order are based upon the water quality objectives contained in the Basin Plan.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 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 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. **Reopener Provisions**

   The reopener provisions are based on 40 CFR 122.44(c) and 123. The Santa Ana 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 Santa Ana Water Board, including revisions to the Basin Plan.

2. **Special Studies and Additional Monitoring Requirements**

   Toxicity Identification Evaluations or Toxicity Reduction Evaluations. This provision is based on the SIP, Section 4, Toxicity Control Provisions.

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

   These requirements are based on the SIP Section 2.4.5.1.

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

   The requirements are based on requirements that were specified in the prior Order and industry standards.

5. **Climate Change Action Plan**

   Changing climate conditions may fundamentally alter the way desalination plants are designed and operated. Climate change research indicates the overarching driver of change is increased atmospheric carbon dioxide (CO_2) from human activity. The increased CO_2 emissions trigger changes to climatic patterns, which increase the intensity of sea level rise and coastal storm surges (Change in Sea Level), lead to more erratic rainfall and local weather patterns (Change in Weather Patterns), trigger a gradual warming of freshwater and ocean temperatures (Change in Water Temperature) and trigger changes to ocean water chemistry (Change in Water pH).

   This permit requires the Discharger to develop and implement a Climate Change Action Plan (CCAP) within eighteen (18) months of the effective date of this Order. The purpose of the CCAP is to project potential climate change impacts on the Facilities and operations, and document steps to address potential impacts on the Facilities.

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

   a. **Collection System**. The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (General Order) on May 2, 2006. The State Water Board amended the Monitoring and Reporting Program for the General Order through Order WQ 2013-0058-EXEC on August 6, 2013. The General Order requires public agencies that own or operate sanitary sewer systems with sewer lines one mile of pipe or greater to enroll for coverage and comply with the General Order. The General Order requires agencies to develop sanitary

sewer management plans and report all sanitary sewer overflows, among other requirements and prohibitions.

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

b. **Pretreatment Program**. These program requirements are established pursuant to 40 CFR 403 regulations.

7. **Other Special Provisions – Not Applicable**

8. **Compliance Schedules – Not Applicable**

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Santa Ana 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 these facilities.

A. Influent Monitoring

This Order carries forward the treatment plant influent monitoring requirements specified in the previous Order, with modifications. Influent monitoring frequency for pentachlorophenol has been increased to quarterly due to results of the RPA. Influent monitoring is required to help determine the effectiveness of the pretreatment program and assess treatment plant performance. Also, monitoring for constituents of emerging concern (CECs) such a polyfluoroalkyl substances (PFAS) have been added in the influent to assess the presence and mass loading of PFAS entering the Facilities. DDW has established notification levels (NLs) and reporting levels (RLs), which are heath-based advisory levels, for three PFAS: Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS), and Perfluorobutane sulfonic acid (PFBS). The NLs for PFOA, PFOS, and PFBS are 5.1 parts-per-trillion (ppt), 6.5 ppt, and 0.5 parts-per-billion (ppb) respectively and RLs are 10 ppt, 40 ppt, and 5 ppb respectively.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, periodic effluent 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.

This Order continues the monitoring requirements specified in Order R8-2015-0036, with modifications. This Order requires that all compliance related effluent monitoring for DP-001 be conducted at effluent monitoring station location M-001A instead of mostly conducting effluent monitoring for DP-001 at M-001B under Order No. R8-2015-0036. It was assumed, in the past, that the treated wastewater effluent discharged at DP-001 originated from RP-1 and the use of M-001B appeared to be appropriate then. Currently, the treated wastewater that is discharged through DP-001 originates mostly from RP-5. Also, Effluent Monitoring Location M-002B, which could potentially be used to collect effluent samples from RP-1's CCB3 outlet for coliform organisms' determination, has been eliminated from this Order as there is no practical use for it. In addition, an annual scan for the remaining contaminants listed in Title 22's MCL List is required under this Order, at the influent and effluent monitoring locations, to assess the potential impact of the Discharger to MUN and groundwater recharge beneficial uses of the receiving water bodies. This Order also requires the Discharger to conduct accelerated monitoring for those constituents that are detected in the annual priority pollutant and Title 22's MCL constituent List scan. Also, monitoring for constituents of emerging concern (CECs) such a polyfluoroalkyl substances (PFAS) have been added in the effluent to assess the presence and mass loading of PFAS being discharged from the Facilities into receiving waters. DDW has stablished notification levels (NLs) and reporting levels (RLs), which are heath-based advisory levels, for three PFAS: Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS), and Perfluorobutane sulfonic acid (PFBS). The NLs for PFOA, PFOS, and PFBS are 5.1 parts-per-trillion (ppt), 6.5 ppt, 0.5 parts-per-billion (ppb) respectively and RLs are 10 ppt, 40 ppt, and 5 ppb respectively.

C. Whole Effluent Toxicity Testing Requirements

WET is an indicator of the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth. This permit establishes monitoring and reporting for chronic toxicity to evaluate compliance with an MDEL and MMET/MMEL (see section IV.C.5. of this Fact Sheet above).

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Basin Plan.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. Water Supply Monitoring

The Discharger will be required to collect a sample of each source of water supplied and analyze for total dissolved solids. The result of this monitoring will enable the Discharger to show compliance with the TDS incremental limitation in the Order.

2. **Constituents of Emerging Concern (CECs)**

CECs are defined to be constituents in personal care products; pharmaceuticals; antimicrobials; industrial, agricultural, and household chemicals; naturally occurring hormones; food additives; transformation products; inorganic constituents; microplastics; and nanomaterials. Monitoring for CECs such as Per- and Polyfluoroalkyl substances (PFAS) have been added in the influent and effluent of the Facilities to assess the presence and quantify the mass loading of PFAS entering and being discharged to the receiving waters from the Facilities and quantify the removal efficiency of the treatment processes. Also, PFAS determination is also required for biosolids exiting the Facilities. Other CECs may be added to the MRP of this Order as they became relevant, from a water quality perspective, and/or threaten to impact the beneficial uses of the receiving waters.

PFAS are a family of more than 5,000 man-made and mostly unregulated chemicals that have been produced since the mid-1900s. They are mobile, persistent, and bioaccumulative. They are resistant to degradation in the environment and when degradation occurs, it often results in the formation of other PFAS compounds. The PFAS compounds have very different physical and chemical properties. Currently, the key classes of concern are perfluoroalkyl sulfonic acids such as the long chain perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA).

DDW has stablished notification levels (NLs) and reporting levels (RLs), which are heath-based advisory levels, for two PFAS: Perfluorooctanoic acid (PFOA) and Perfluorooctane sulfonate (PFOS). The NLs for PFOA and PFOS are 5.1 parts-per-trillion (ppt) and 6.5 ppt respectively and RLs are 10 ppt and 40 ppt respectively. Recently, DDW established a NL and a RL of 0.5 parts per billion and 5 parts per billion, respectively, for perfluorobutane sulfonic acid (PFBS)’

NLs are nonregulatory, health-based advisory levels established for contaminants in drinking water for which maximum contaminant levels have not been established. NLs are established as precautionary measures for contaminants that may be considered candidates for establishment of maximum contaminant levels (MCLs) but have not yet undergone or completed the regulatory standard setting process prescribed for the development of MCLs and are not drinking water standards.

At the request of the DDW, the Office of Environmental Health Hazard Assessment (OEHHA) has initiated the development of Public Health Goals (PHGs) for PFOA and PFOS in drinking water. PHGs are concentrations of contaminants in drinking water that pose no significant acute or chronic health risks. OEHHA establishes PHGs, which are used as the health basis for the development of California’s primary drinking water standards (MCLs).

Through the State Water Board's investigation, seven additional PFAS chemicals have been detected in multiple wells in California. The State Water Board has requested OEHHA's recommendation in developing notification levels for the following chemicals:

- perfluorohexane sulfonic acid (PFHxS)
- perfluorobutane sulfonic acid (PFBS) – Completed.
- perfluorohexanoic acid (PFHxA)
- perfluoroheptanoic acid (PFHpA)
- perfluorononanoic acid (PFNA)
- perfluorodecanoic acid (PFDA)
- 4,8-dioxia-3H-perflourononanoic acid (ADONA)

As additional PFAS data become available, DDW may request from OEHHA to include additional PFAS chemicals. The State Water Board also requested that OEHHA include an evaluation of whether some of the PFAS chemicals should be grouped together when being considered in a regulatory manner and if it is possible to consider them in subclasses based on specific characteristics or features of the chemicals.

3. **Pretreatment Monitoring**

These monitoring and reporting requirements are established pursuant to 40 CFR 403 regulations.

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

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), U.S. EPA 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 U.S. EPA 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 U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

VIII. PUBLIC PARTICIPATION

The Santa Ana Water Board has considered the issuance of WDRs that will serve as an NPDES permit for the Inland Empire Utilities Agency, Water Recycling Facilities, Surface Waters Discharges, and Non-Potable Recycled Water Reuse. As a step in the WDR adoption process, the Santa Ana Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

A. Notification of Interested Parties

The Santa Ana Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through posting of a Notice of Public Hearing on the Santa Ana Water Board's website.

The public had access to the agenda and any changes in dates and locations through the Santa Ana Water Board's website at https://www.waterboards.ca.gov/santaana/.

B. Written Comments

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Officer at the Santa Ana Water Board at the address on the cover page of this Order, by fax to (951) 320-6362, or by email to Najah Amin at Najah.Amin@waterboards.ca.gov.

To be fully responded to by staff and considered by the Santa Ana Water Board, the written comments were due at the Santa Ana Water Board office by 5:00 p.m. on May 31, 2022.

C. Public Hearing

The Santa Ana 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:	June 3, 2022
Time:	9:00 A.M.
Location:	California Air Resources Board 4001 Iowa Avenue Riverside, CA 92507

Interested persons were invited to attend. At the public hearing, which was a video, teleconference and physical meeting, the Santa Ana Water Board heard testimony pertinent to the discharge, WDRs, and permit. For accuracy of the record, extensive testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Santa Ana 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>

E. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Santa Ana Water Board by calling (951) 782-4130.

F. Register of Interested Persons

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

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Najah Amin at (951) 320-6362 or Najah.Amin@waterboards.ca.gov.

ATTACHMENT G – U.S. EPA PRIORITY POLLUTANT LIST

EPA PRIORITY POLLUTANT LIST		
Metals	**Acid Extractibles**	**Base/Neutral Extractibles (continuation)**
1. Antimony	45. 2-Chlorophenol	91. Hexachloroethane
2. Arsenic	46. 2,4-Dichlorophenol	92. Indeno (1,2,3-cd) Pyrene
3. Beryllium	47. 2,4-Dimethylphenol	93. Isophorone
4. Cadmium	48. 2-Methyl-4,6-Dinitrophenol	94. Naphthalene
5a. Chromium (III)	49. 2,4-Dinitrophenol	95. Nitrobenzene
5b. Chromium (VI)	50. 2-Nitrophenol	96. N-Nitrosodimethylamine
6. Copper	51. 4-Nitrophenol	97. N-Nitrosodi-N-Propylamine
7. Lead	52. 3-Methyl-4-Chlorophenol	98. N-Nitrosodiphenylamine
8. Mercury	53. Pentachlorophenol	99. Phenanthrene
9. Nickel	54. Phenol	100. Pyrene
10. Selenium	55. 2, 4, 6 – Trichlorophenol	101. 1,2,4-Trichlorobenzene
11. Silver	**Base/Neutral Extractibles**	**Pesticides**
12. Thallium	56. Acenaphthene	102. Aldrin
13. Zinc	57. Acenaphthylene	103. Alpha BHC
Miscellaneous	58. Anthracene	104. Beta BHC
14. Cyanide	59. Benzidine	105. Delta BHC
15. Asbestos (not required unless requested)	60. Benzo (a) Anthracene	106. Gamma BHC
16. 2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61. Benzo (a) Pyrene	107. Chlordane
Volatile Organics	62. Benzo (b) Fluoranthene	108. 4, 4' - DDT
17. Acrolein	63. Benzo (g,h,i) Perylene	109. 4, 4' - DDE
18. Acrylonitrile	64. Benzo (k) Fluoranthene	110. 4, 4' - DDD
19. Benzene	65. Bis (2-Chloroethoxy) Methane	111. Dieldrin
20. Bromoform	66. Bis (2-Chloroethyl) Ether	112. Alpha Endosulfan
21. Carbon Tetrachloride	67. Bis (2-Chloroisopropyl) Ether	113. Beta Endosulfan
22. Chlorobenzene	68. Bis (2-Ethylhexyl) Phthalate	114. Endosulfan Sulfate
23. Chlorodibromomethane	69. 4-Bromophenyl Phenyl Ether	115. Endrin
24. Chloroethane	70. Butylbenzyl Phthalate	116. Endrin Aldehyde
25. 2-Chloroethyl Vinyl Ether	71. 2-Chloronaphthalene	117. Heptachlor
26. Chloroform	72. 4-Chlorophenyl Phenyl Ether	118. Heptachlor Epoxide
27. Dichlorobromomethane	73. Chrysene	119. PCB 1016
28. 1,1-Dichloroethane	74. Dibenzo (a,h) Anthracene	120. PCB 1221
29. 1,2-Dichloroethane	75. 1,2-Dichlorobenzene	121. PCB 1232
30. 1,1-Dichloroethylene	76. 1,3-Dichlorobenzene	122. PCB 1242
31. 1,2-Dichloropropane	77. 1,4-Dichlorobenzene	123. PCB 1248
32. 1,3-Dichloropropylene	78. 3,3'-Dichlorobenzidine	124. PCB 1254
33. Ethylbenzene	79. Diethyl Phthalate	125. PCB 1260
34. Methyl Bromide	80. Dimethyl Phthalate	126. Toxaphene
35. Methyl Chloride	81. Di-n-Butyl Phthalate	
36. Methylene Chloride	82. 2,4-Dinitrotoluene	
37. 1,1,2,2-Tetrachloroethane	83. 2-6-Dinitrotoluene	
38. Tetrachloroethylene	84. Di-n-Octyl Phthalate	
39. Toluene	85. 1,2-Dipenylhydrazine	
40. 1,2-Trans-Dichloroethylene	86. Fluoranthene	
41. 1,1,1-Trichloroethane	87. Fluorene	

42. 1,1,2-Trichloroethane	88. Hexachlorobenzene	
43. Trichloroethylene	89. Hexachlorobutadiene	
44. Vinyl Chloride	90. Hexachlorocyclopentadiene	

ATTACHMENT H – MINIMUM LEVELS

MINIMUM LEVELS IN PPB (µg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in this Attachment that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in the PQL Table.

ML Usage: The ML value in this Attachment 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 interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

Note: chemical names in parenthesis and italicized is another name for the constituent.

[1] The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

MINIMUM LEVELS IN PPB (µg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3’ Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2 - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

[2] With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.

[3] Phenol by colorimetric technique has a factor of 1.

[4] The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.

MINIMUM LEVELS IN PPB (µg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

[5] The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.

ATTACHMENT I – TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

	CONSTITUENT	µg/L
1	***Antimony***	***6***
2	***Arsenic***	***10***
3	***Beryllium***	***4***
4	Cadmium	1.5
5a	Chromium III	120
5b	Chromium VI	5.5
6	Copper	6.0
7	Lead	2.2
8	Mercury	0.026
9	Nickel	30
10	Selenium	2.5
11	Silver	3.0
12	***Thallium***	***2***
13	Zinc	70
14	Cyanide	2.6
15	***Asbestos***	***7***
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	390
18	Acrylonitrile	0.33
19	Benzene	0.5
20	Bromoform	180
21	***Carbon Tetrachloride***	***0.5***
22	***Chlorobenzene***	***70***
23	Chlorodibromomethane	17
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	--
27	Dichlorobromomethane	23
28	***1,1-Dichloroethane***	***5***
29	***1,2-Dichloroethane***	***0.5***
30	1,1-Dichloroethylene	1.6
31	***1,2-Dichloropropane***	***5***
32	***1,3-Dichloropropylene***	***0.5***
33	***Ethylbenzene***	***300***
34	Methyl Bromide	2,000
35	Methyl Chloride	--
36	***Methylene Chloride***	***5***
37	***1,1,2,2-Tetratchloroethane***	***1***

	CONSTITUENT	µg/L
38	***Tetratchloroethylene***	***5***
39	***Toluene***	***150***
40	***1,2,-Trans-dichloroethylene***	***10***
41	***1,1,1-Trichloroethane***	***200***
42	***1,1,2-Trichloroethane***	***5***
43	***Trichloroethylene***	***5***
44	***Vinyl Chloride***	***0.5***
45	2-Chlorophenol	200
46	2,4-Dichlorophenol	395
47	2,4-Dimethylphenol	1,650
48	2-Methy-4,6-Dinitrophenol	383
49	2,4-Dinitrophenol	7,000
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	***Pentachlorophenol***	***1***
54	Phenol	2,300,000
55	2,4,6-Trichlorophenol	3.3
56	Acenapthene	1350
57	Acenapthylene	--
58	Anthracene	55,000
59	Benzidine	0.00027
60	Benzo (a) anthracene	0.025
61	Benzo (a) pyrene	0.025
62	Benzo (b) fluoranthene	0.0022
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.025
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.7
67	Bis (2-Chloroisopropyl) ether	85.000
68	***Bis (2-ethyhexyl) phthalate***	***4***
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	2,600
71	2- Chloronapthalene	2,150
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.025
74	Dibenzo (a,h) anthracene	0.025
75	***1,2-Dichlorobenzene***	***600***

See notes below for italicized constituents.

ATTACHMENT I. -Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	1,300
77	***1,4-Dichlorobenzene***	***5***
78	3,3-Dichlorobenzidine	0.039
79	Diethyl phthalate	60,000
80	Dimethyl phthalate	1,450,000
81	Di-N-butyl phthalate	6,000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7,000
88	Hexachlorobenzene	0.00038
89	Hexachlorobutadiene	25
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	***Naphthalene***	***17***
95	Nitrobenzene	950
96	N-Nitrosodimethylamine	4
97	N-Nitrosodi-N-propylamine	0.7
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	5,500
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.032
106	BHC Delta	--
107	Chlordane	0.00029
108	4,4-DDT	0.00029
109	4,4-DDE	0.00029
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.40
117	***Heptachlor***	***0.01***
118	***Heptachlor Epoxide***	***0.01***
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.0001

Notes:

1. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.38[1]).
2. For constituents shown bold and italicized, the values shown in the Table are based on the California Division of Drinking Water maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
3. For hardness dependent metals, the hardness value used is 120 mg/L and for pentachlorophenol, the pH value used is 7.5 standard units.

[1] See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.

ATTACHMENT J – STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Storm water flows generated on-site at RP-1 are collected and pumped into a liquid process stream for treatment. In the event that stormwater flows exceed the capacity to store and/or pump to a liquid process stream, stormwater may enter Reach 1 of Cucamonga Creek via S-001 or S-002. Also, storm water flows generated on site at RP- 2 are normally fully contained within the site and the old outfall valve that leads to Chino Creek is normally closed. However, during severe rain storm events, Chino Creek, which is adjacent to RP-2, may rise and flood part of the RP-2 site by the outfall valve location and cause storm water runoff from RP-2 to come into contact with Chino Creek's flood waters. Under these circumstances, a discharge of storm water occurs from RP-2 to Chino Creek. Storm water may be discharged from RP-2 to Reach 1B of Chino Creek through S-003.

Storm water flows generated on-site at RP-4 are fully contained in an onsite 4-million gallon capacity storage basin. All water captured in this basin is then pumped to a liquid process stream for treatment. Also, storm water flows generated on-site at RP-5 and CCWRF plant are collected and pumped to the liquid process stream for treatment. This Order designates three storm water discharge monitoring points as STORM-001, STORM-002 and STORM-003, which are detailed in Table E-2 of Attachment E of this Order.

A. SWPPP ELEMENTS

By October 31, 2022, the Discharger shall update the site-specific Storm Water Pollution Prevention Plan (SWPPP) for the Facility. The updated SWPPP shall contain the following elements:

1. Facility name and contact information;
2. Site map;
3. List of industrial materials;
4. Description of potential pollution sources;
5. Assessment of potential pollutant sources;
6. Minimum Best Management Practices (BMPs);
7. Advanced BMPs, if applicable;
8. Monitoring implementation plan;

9. Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation); and,

10. The date that the SWPPP was initially prepared and the date of each SWPPP amendment, if applicable.

B. SWPPP IMPLEMENTATION AND REVISIONS

The Discharger shall implement the updated SWPPP for the Facility by November 15, 2022. The Discharger shall also revise the SWPPP whenever necessary.

C. SWPPP PERFORMANCE STANDARDS

1. The Discharger shall ensure a SWPPP is prepared to:

   a. Identify and evaluate all sources of pollutants that may affect the qualityof storm water discharges;

   b. Identify and describe the minimum BMPs (see Section H.1 below) and any advanced BMPs (see Section H.2 below) implemented to reduce or prevent pollutants in storm water discharges; and,

   c. Identify and describe conditions or circumstances which may require future revisions to be made to the SWPPP.

2. The Discharger shall update its SWPPP in accordance with all applicable SWPPP requirements of this Attachment. A copy of the SWPPP shall be maintained at the Facility.

D. PLANNING AND ORGANIZATION

1. Pollution Prevention Team

   The Discharger must have a Pollution Prevention Team established and responsible for assisting with the implementation of the requirements in this Attachment. The Discharger shall include in the SWPPP detailed information about its Pollution Prevention Team including:

   a. The positions within the Facility organization (collectively, team members) who assist in implementing the SWPPP;

   b. The responsibilities, duties, and activities of each of the team members; and,

c. The procedures to identify alternate team members to implement the SWPPP when the regularly assigned team members are temporarily unavailable (due to vacation, illness, out of town business, or other absences).

2. Other Requirements and Existing Facility Plans

a. The Discharger shall ensure its SWPPP is developed, implemented, and revised as necessary to be consistent with any applicable municipal, state, and federal requirements that pertain to the requirements in this Order.

b. The Discharger may include in its SWPPP the specific elements of existing plans, procedures, or regulatory compliance documents that contain storm water-related BMPs or otherwise relate to the requirements of this Order.

c. The Discharger shall properly reference the original sources for any elements of existing plans, procedures, or regulatory compliance documents included as part of their SWPPP and shall maintain a copy of the documents at the Facility as part of the SWPPP.

d. The Discharger shall document in its SWPPP the Facility's scheduled operating hours. Scheduled Facility operating hours that would be considered irregular (temporary, intermittent, seasonal, weather dependent, etc.) shall also be documented in the SWPPP.

E. SITE MAP

1. The Discharger shall prepare a site map that includes notes, legends, a north arrow, and other data as appropriate to ensure the map is clear, legible and understandable.

2. The Discharger may provide the required information on multiple site maps.

3. The Discharger shall include the following information on the site map:

a. The Facility boundary, storm water drainage areas within the Facility boundary, and portions of any drainage area impacted by discharges from surrounding areas. Include the flow direction of each drainage area, on-facility surface water bodies, areas of soil erosion, and location(s) of nearby water bodies (such as rivers, lakes, wetlands, etc.) or municipal storm drain inlets that may receive the Facility's storm water discharges;

b. Locations of storm water collection and conveyance systems, associated discharge locations, and direction of flow. Include any sample locations if different than the identified discharge locations;

c. Locations and descriptions of structural control measures[1] that affect storm water discharges, and/or run-on;

d. Identification of all impervious areas of the Facility, including paved areas, buildings, covered storage areas, or other roofed structures;

e. Locations where materials are directly exposed to precipitation and the locations where identified significant spills or leaks (see Section G.1.d below) have occurred; and

f. Areas of industrial activity subject to this Order. Identify all industrial storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and material reuse areas, and other areas of industrial activity that may have potential pollutant sources.

F. LIST OF INDUSTRIAL MATERIALS

The Discharger shall ensure the SWPPP includes a list of industrial materials handled at the Facility, and the locations where each material is stored, received, shipped, and handled, as well as the typical quantities and handling frequency.

G. POTENTIAL POLLUTANT SOURCES

1. Description of Potential Pollutant Sources

   a. Industrial Processes

      The Discharger shall ensure the SWPPP describes each industrial process including: manufacturing, cleaning, maintenance, recycling, disposal, and any other activities related to the process. The type, characteristics, and approximate quantity of industrial materials used in or resulting from the process shall be included. Areas protected by containment structures and the corresponding containment capacity shall be identified and described.

[1] Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

b. Material Handling and Storage Areas

The Discharger shall ensure the SWPPP describes each material handling and storage area, including: the type, characteristics, and quantity of industrial materials handled or stored; the shipping, receiving, and loading procedures; the spill or leak prevention and response procedures; and the areas protected by containment structures and the corresponding containment capacity.

c. Dust and Particulate Generating Activities

The Discharger shall ensure the SWPPP describes all industrial activities that generate a significant amount of dust or particulate that may be deposited within the Facility boundaries. The SWPPP shall describe such industrial

activities, including the discharge locations, the source type, and the characteristics of the dust or particulate pollutant.

d. Significant Spills and Leaks

The Discharger shall:

i. Evaluate the Facility for areas where spills and leaks can likely occur;

ii. Ensure the SWPPP includes:

a) A list of any industrial materials that have spilled or leaked in significant quantities and have discharged from the Facility's storm water conveyance system within the previous five-year period;

b) A list of any toxic chemicals identified in 40 Code of Federal Regulations (CFR) 302 that have been discharged from the facilities' storm water conveyance system as reported on the United States Environmental Protection Agency (U.S. EPA) Form R, as well as oil and hazardous substances in excess of reportable quantities (40 CFR 110, 117, and 302) that have discharged from the Facility's storm water conveyance system within the previous five-year period;

c) A list of any industrial materials that have spilled or leaked in significant quantities and had the potential to be discharged from the Facility's storm water conveyance system within the previous

five-year period; and,

iii. Ensure that for each discharge or potential discharge listed above the SWPPP includes the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged from the Facility's storm water conveyance system; the cleanup or remedial actions that have occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure spills or leaks of the material do not reoccur.

e. Non Storm Water Discharges (NSWDs)

f. The Discharger shall:

i. Ensure the SWPPP includes an evaluation of the Facility that identifies all NSWDs, sources, and drainage areas;

ii. Ensure the SWPPP includes an evaluation of all drains (inlets and outlets) that identifies connections to the storm water conveyance system;

iii. Ensure the SWPPP includes a description of how all unauthorized NSWDs have been eliminated; and,

iv. Ensure all NSWDs are described in the SWPPP. This description shall include the source, quantity, frequency, and characteristics of the NSWDs, associated drainage area, and whether it is an authorized or unauthorized NSWD.

g. Erodible Surfaces

The Discharger shall ensure the SWPPP includes a description of the Facility locations where soil erosion may be caused by industrial activity, contact with storm water, authorized and unauthorized NSWDs, or run-on from areas surrounding the Facility.

2. Assessment of Potential Pollutant Sources

a. The Discharger shall ensure that the SWPPP includes a narrative assessment of all areas of industrial activity with potential industrial pollutant sources. At a minimum, the assessment shall include:

i. The areas of the Facility with likely sources of pollutants in industrial

storm water discharges and authorized NSWDs;

ii. The pollutants likely to be present in industrial storm water discharges and authorized NSWDs;

iii. The approximate quantity, physical characteristics (e.g., liquid, powder, solid, etc.), and locations of each industrial material handled, produced, stored, recycled, or disposed;

iv. The degree to which the pollutants associated with those materials may be exposed to, and mobilized by contact with, storm water;

v. The direct and indirect pathways by which pollutants may be exposed to storm water or authorized NSWDs;

vi. All sampling, visual observation, and inspection records;

vii. The effectiveness of existing BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs;

viii. The estimated effectiveness of implementing, to the extent feasible, minimum BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized NSWDs; and,

b. Based upon the assessment above, the Discharger shall identify in the SWPPP any areas of the Facility where the minimum BMPs described in subsection H.1 below will not adequately reduce or prevent pollutants in storm water discharges in compliance with the storm water discharge specifications of this Order. Dischargers shall identify any advanced BMPs, as described in subsection H.2 below, for those areas. Please see Table A of this attachment for an assessment example pertaining to a vehicle and equipment fueling area.

H. BEST MANAGEMENT PRACTICES (BMPS)

1. Minimum BMPs

The Discharger shall, to the extent feasible, implement and maintain all of the following minimum BMPs to reduce or prevent pollutants in storm water discharges.[2]

[2] For the purposes of this Order, the requirement to implement BMPs “to the extent feasible” requires the Discharger to select, design, install and implement BMPs that reduce or prevent discharges of

a. Good Housekeeping

The Discharger shall:

i. Observe all outdoor areas associated with industrial activity; including storm water discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas impacted by off-facility materials or storm water run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;

ii. Minimize or prevent material tracking;

iii. Minimize dust generated from industrial materials or activities;

iv. Ensure that all Facility areas impacted by rinse/wash waters are cleaned as soon as possible;

v. Cover all stored industrial materials that can be readily mobilized by contact with storm water;

vi. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;

vii. Prevent disposal of any rinse/wash waters or industrial materials into the storm water conveyance system;

viii. Minimize storm water discharges from non-industrial areas (e.g., storm water flows from employee parking area) that contact industrial areas of the Facility; and,

ix. Minimize authorized NSWDs from non-industrial areas (e.g., potable water, fire hydrant testing, etc.) that contact industrial areas of the Facility.

b. Preventive Maintenance

The Discharger shall:

i. Identify all equipment and systems used outdoors that may spill

pollutants in the storm water discharge in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

or leak pollutants;

ii. Observe the identified equipment and systems to detect leaks, or identify conditions that may result in the development of leaks;

iii. Establish an appropriate schedule for maintenance of identified equipment and systems; and,

iv. Establish procedures for prompt maintenance and repair of equipment, and maintenance of systems when conditions exist that may result in the development of spills or leaks.

c. Spill and Leak Prevention and Response

The Discharger shall:

i. Establish procedures and/or controls to minimize spills and leaks;

ii. Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the storm water conveyance system. Spilled or leaked industrial materials shall be cleaned promptly and disposed of properly;

iii. Identify and describe all necessary and appropriate spill and leak response equipment, location(s) of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and,

iv. Identify and train appropriate spill and leak response personnel.

d. Material Handling and Waste Management

The Discharger shall:

i. Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with storm water during a storm event;

ii. Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper, etc.) that can be transported or dispersed by the wind or contact with storm water;

iii. Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;

iv. Divert run-on and storm water generated from within the Facility away from all stockpiled materials;

v. Clean all spills of industrial materials or wastes that occur during handlingin accordance with the spill response procedures (see Section H.1.c above); and,

vi. Observe and clean as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

e. Erosion and Sediment Controls

For each erodible surface Facility location identified in the SWPPP (see Section G.1.f above), the Discharger shall:

i. Implement effective wind erosion controls;

ii. Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event;

iii. Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site;

iv. Divert run-on and storm water generated from within the Facility away from all erodible materials; and,

v. If sediment basins are implemented, ensure compliance with the design storm standards as described in Section H.5 below.

f. Employee Training Program

The Discharger shall:

i. Ensure that all team members implementing the various compliance activities of this Order are properly trained to implement the requirements of this Attachment, including but not limited to: BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. If a Discharger enters Level 1 status, appropriate team members shall be trained by a QISP;

ii. Prepare or acquire appropriate training manuals or training materials;

iii. Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive;

iv. Provide a training schedule; and,

v. Maintain documentation of all completed training classes and the personnel that received training in the SWPPP.

g. Quality Assurance and Record Keeping

The Discharger shall:

i. Develop and implement management procedures to ensure that appropriate staff implements all elements of the SWPPP, including the Monitoring Implementation Plan;

ii. Develop a method of tracking and recording the implementation of BMPs identified in the SWPPP; and

iii. Maintain the BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five (5) years.

2. Advanced BMPs

a. In addition to the minimum BMPs described in Section H.1 above, the Discharger shall, to the extent feasible, implement and maintain any advanced BMPs identified in Section G.2.b, necessary to reduce or prevent discharges of pollutants in its storm water discharge in a manner that is required to comply with the effluent limitations established for this Order.

b. Advanced BMPs may include one or more of the following BMPs:

i. Exposure Minimization BMPs

These include storm resistant shelters (either permanent or temporary) that prevent the contact of storm water with the identified industrial materials or area(s) of industrial activity.

ii. Storm Water Containment and Discharge Reduction BMPs

These include BMPs that divert, infiltrate, reuse, contain, retain, or reduce the volume of storm water runoff. Dischargers are encouraged to utilize BMPs that infiltrate or reuse storm water where feasible.

iii. Treatment Control BMPs

This is the implementation of one or more mechanical, chemical, biologic, or any other treatment technology that will meet the treatment design standard.

iv. Other Advanced BMPs

Any additional BMPs not described in subsections b.i through iii above that are necessary to meet the effluent limitations of this Order.

3. BMP Descriptions

a. The Discharger shall ensure that the SWPPP identifies each BMP being implemented at the Facility, including:

i. The pollutant(s) that the BMP is designed to reduce or prevent in industrial storm water discharges;

ii. The frequency, time(s) of day, or conditions when the BMP is scheduled for implementation;

iii. The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented;

iv. The individual and/or position responsible for implementing the BMP;

v. The procedures, including maintenance procedures, and/or instructions to implement the BMP effectively;

vi. The equipment and tools necessary to implement the BMP effectively; and,

vii. The BMPs that may require more frequent visual observations beyond the monthly visual observations.

b. The Discharger shall identify any BMPs described in subsection a above that are implemented in lieu of any of the minimum or applicable advanced BMPs.

4. BMP Summary Table

   The Discharger shall prepare a table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

5. Design Storm Standards for Treatment Control BMPs

   All new treatment control BMPs employed by the Discharger to comply with Section H.2 Advanced BMPs and new sediment basins installed after the effective date of this order shall be designed to comply with design storm standards in this Section, except as provided in an Industrial Activity BMP Demonstration (Section C.4.b.i. of Attachment K). A Factor of Safety shall be incorporated into the design of all treatment control BMPs to ensure that storm water is sufficiently treated throughout the life of the treatment control BMPs. The design storm standards for treatment control BMPs are as follows:

   a. Volume-based BMPs: The Discharger, at a minimum, shall calculate[3] the volume to be treated using one of the following methods:

      i. The volume of runoff produced from an 85th percentile 24-hour storm event, as determined from local, historical rainfall records;

      ii. The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice;[4] or,

      iii. The volume of annual runoff required to achieve 80% or more treatment, determined in accordance with the methodology set forth in the latest edition of California Stormwater Best Management Practices Handbook[5], using local, historical rainfall records.

   b. Flow-based BMPs: The Discharger shall calculate the flow

[3] All hydrologic calculations shall be certified by a California licensed professional engineer in accordance with the Professional Engineers Act (Bus. & Prof. Code § 6700, et seq).

[4] Water Environment Federation (WEF). Manual of Practice No. 23/ ASCE Manual of Practice No. 87, cited in chapter 5 (1998 Edition) and Cited in Chapter 3 (2012 Edition)

[5] California Stormwater Quality Association. Stormwater Best Management Practice New Development and Redevelopment Handbook. http://www.casqa.org/ .

needed to be treated using one of the following methods:

i. The maximum flow rate of runoff produced from a rainfall intensity of at least 0.2 inches per hour for each hour of a storm event;

ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or,

iii. The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in total pollutant loads as would be achieved by treatment of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

TABLE A: Five Phases for Developing and Implementing an Industrial Storm Water Pollution Prevention Plan (SWPPP)

PLANNING AND ORGANIZATION

*Form Pollution Prevention Team
*Review other Facility plans

ASSESSMENT

*Develop a site map
*Identify potential pollutant sources
*Inventory of materials and chemicals
*List significant spills and leaks
*Identify Non-Storm Water Discharges
*Assess pollutant risk

Best Management Practice (BMP) IDENTIFICATION

*Identify minimum required BMPs
*Identify any advanced BMPs

IMPLEMENTATION

*Train employees for the Pollution Prevention Team
*Implement BMPs
*Collect and review records

EVALUATION / MONITORING

*Conduct annual Facility evaluation (Annual Evaluation)
*Review monitoring information
*Evaluate BMPs
*Review and revise SWPPP

TABLE B: EXAMPLE - ASSESSMENT OF POTENTIAL INDUSTRIAL POLLUTION SOURCES AND CORRESPONDING BMPS SUMMARY

Area	Activity	Pollutant Source	Industrial Pollutant	BMPs
Vehicle and Equipment Fueling	Fueling	Spills and leaks during delivery	Fuel oil	-Use spill and overflow protection
		Spills caused by topping off fuel tanks	Fuel oil	-Train employees on proper fueling, cleanup, and spill response techniques
		Hosing or washing down fuel area	Fuel oil	-Use dry cleanup methods rather than hosing down area -Implement proper spill prevention control program
		Leaking storage tanks	Fuel oil	-Inspect fueling areas regularly to detect problems
		Rainfall running off fueling area, and rainfall running onto and off fueling area	Fuel oil	-Minimize run-on of storm water into the fueling area, cover fueling area

ATTACHMENT K – STORM WATER MONITORING AND REPORTING REQUIREMENTS

Storm water flows generated on-site at RP-1 are collected and pumped into a liquid process stream for treatment. In the event that stormwater flows exceed the capacity to store and/or pump to a liquid process stream, stormwater may enter Reach 1 of Cucamonga Creek via S- 001 or S-002. Also, storm water flows generated on site at RP-2 are normally fully contained within the site and the old outfall valve that leads to Chino Creek is normally closed. However, during severe rain storm events, Chino Creek, which is adjacent to RP-2, may rise and flood part of the RP-2 site by the outfall valve location and cause storm water runoff from RP-2 to come into contact with Chino Creek's flood waters. Under these circumstances, a discharge of storm water occurs from RP-2 to Chino Creek. Storm water may be discharged from RP-2 to Reach 1B of Chino Creek through S-003.

Storm water flows generated on-site at RP-4 are fully contained in an onsite 4-million gallon capacity storage basin. All water captured in this basin is then pumped to a liquid process stream for treatment. Also, storm water flows generated on-site at RP-5 and CCWRF plant are collected and pumped to the liquid process stream for treatment. This Order designates three storm water discharge monitoring points as STORM-001, STORM-002 and STORM-003, which are detailed in Table E-2 of Attachment E of this Order.

A. MONITORING IMPLEMENTATION PLAN

The Discharger shall prepare a Monitoring Implementation Plan in accordance with the requirements of this Attachment. The Monitoring Implementation Plan shall be included in the SWPPP and shall include the following items:

1. An identification of team members assigned to conduct the monitoring requirements;

2. A description of the following:

   a. Discharge locations;

   b. Visual observation procedures; and,

   c. Visual observation response procedures related to monthly visual observations and sampling event visual observations.

3. Justifications for any of the following that is applicable to the facility:

   a. Alternative discharge locations in accordance with Section B.3.c.;

   b. Representative Sampling Reduction in accordance with Section B.3.d.; or,

c. Qualified Combined Samples in accordance with Section B.3.e

4. Procedures for field instrument calibration instructions, including calibration intervals specified by the manufacturer; and,

5. An example Chain of Custody form used when handling and shipping water quality samples to the lab.

B. MONITORING

1. Visual Observations

a. Monthly Visual Observations

i. At least once per calendar month, the Discharger shall visually observe each drainage area for the following:

a) The presence or indications of prior, current, or potential unauthorized NSWDs and their sources;

b) Authorized NSWDs (as defined in Section IV of the Statewide Industrial General Permit Order No. 2014-0057-DWQ), sources, and associated BMPs to ensure compliance with Section IV.B.3 of the Statewide Industrial General Permit Order No. 2014-0057-DWQ; and,

c) Outdoor industrial equipment and storage areas, outdoor industrial activities areas, BMPs, and all other potential source of industrial pollutants.

ii. The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation.

iii. The Discharger shall provide an explanation in the Annual Report for uncompleted monthly visual observations.

b. Sampling Event Visual Observations

Sampling event visual observations shall be conducted at the same time sampling occurs at a discharge location. At each discharge location where a sample is obtained, the Discharger shall observe the discharge of storm water associated with industrial activity.

i. The Discharger shall ensure that visual observations of storm water discharged from containment sources (e.g. secondary containment or storage ponds) are conducted at the time that the discharge is sampled.

ii. Any Discharger employing volume-based or flow-based treatment BMPs

shall sample any bypass that occurs while the visual observations and sampling of storm water discharges are conducted.

iii. The Discharger shall visually observe and record the presence or absence of floating and suspended materials, oil and grease, discolorations, turbidity, odors, trash/debris, and source(s) of any discharged pollutants.

iv. In the event that a discharge location is not visually observed during the sampling event, the Discharger shall record which discharge locations were not observed during sampling or that there was no discharge from the discharge location.

v. The Discharger shall provide an explanation in the Annual Report for uncompleted sampling event visual observations.

c. Visual Observation Records

The Discharger shall maintain records of all visual observations. Records shall include the date, approximate time, locations observed, presence and probable source of any observed pollutants, name of person(s) that conducted the observations, and any response actions and/or additional SWPPP revisions necessary in response to the visual observations.

d. The Discharger shall revise BMPs as necessary when the visual observations indicate pollutant sources have not been adequately addressed in the SWPPP.

2. Sampling and Analysis

a. A Qualifying Storm Event (QSE) is a precipitation event that:

i. Produces a discharge for at least one drainage area; and,

ii. Is preceded by 48 hours with no discharge from any drainage area.

b. The Discharger shall collect and analyze storm water samples from two (2) QSEs within the first half of each reporting year (July 1 to December 31), and two (2) QSEs within the second half of each reporting year (January 1 to June 30).

c. Except as provided in Section B.3.d. (Representative Sampling Reduction), samples shall be collected from each drainage area at all discharge locations. The samples must be:

i. Representative of storm water associated with industrial activities and any commingled authorized NSWDs; or,

ii. Associated with the discharge of contained storm water.

d. Samples from each discharge location shall be collected within four (4) hours of:

   i. The start of the discharge; or,

   ii. The start of facility operations if the QSE occurs within the previous

   12-hour period (e.g., for storms with discharges that begin during the night for facilities with day-time operating hours). Sample collection is required during scheduled facility operating hours and when sampling conditions are safe in accordance with Section B.3.f.i.b).

e. The Discharger shall analyze all collected samples for the following parameters:

   i. Total suspended solids (TSS) and oil and grease (O&G);

   ii. pH (see Section B.3.b.);

   iii. Additional parameters identified by the Discharger on a facility-specific basis that serve as indicators of the presence of all industrial pollutants identified in the pollutant source assessment (Section G.2. of Attachment J of this Order). These additional parameters may be modified (added or removed) in accordance with any updated SWPPP pollutant source assessment; and

   iv. Additional parameters required by the Santa Ana Water Board.

f. The Discharger shall ensure that the collection, preservation and handling of all storm water samples are in accordance with Attachment E of this Order.

g. The Discharger shall select corresponding Numeric Action Levels (NALs), analytical test methods, and reporting units from the list provided in Table 1 below. Dischargers may propose an analytical test method for any parameter or pollutant that does not have an analytical test method specified in Table 1. Dischargers may also propose analytical test methods with substantially similar or more stringent method detection limits than existing approved analytical test methods.

h. Samples from different discharge locations shall not be combined or composited except as allowed in Section B.3.e. (Qualified Combined Samples).

i. The Discharger shall ensure that all laboratory analyses are conducted according to Attachment E of this Order.

j. Sampling Analysis Reporting

i. The Discharger shall submit all sampling and analytical results for all individual or Qualified Combined Samples via CIWQS within 30 days of obtaining all results for each sampling event.

ii. The Discharger shall provide the method detection limit when an analytical result from samples taken is reported by the laboratory as a “non-detect" or less than the method detection limit. A value of zero shall not be reported.

iii. The Discharger shall provide the analytical result from samples taken that is reported by the laboratory as below the minimum level (often referred to as the reporting limit) but above the method detection limit.

TABLE 1 PARAMETER NAL VALUES, TEST METHODS, AND REPORTING UNITS

Parameter	Units	Annual NAL	Instantaneous Maximum NAL	Required Test Method
pH	pH units	N/A	≥6.5 and ≤8.5	See Section B.3.b.
Total Suspended Solids (TSS)	mg/L	100	400	SM 2540-D
Oil & Grease (O&G), Total	mg/L	15	25	EPA 1664A
Total Recoverable Zinc*	mg/L	0.26	N/A	EPA 200.8
Total Recoverable Copper*	mg/L	0.0332	N/A	EPA 200.8
Total Recoverable Lead*	mg/L	0.262	N/A	EPA 200.8
Total Recoverable Cadmium*	mg/L	0.0053	N/A	EPA 200.8
Total Recoverable Selenium	mg/L	0.005	N/A	EPA 200.8

Note: * = The concentration of this metal is hardness dependent and the NAL is the highest value by U.S. EPA based on their hardness table in the 2008 MSGP.

3. Methods and Exceptions

a. The Discharger shall comply with the monitoring methods in this Order.

b. pH Methods

i. The Discharger shall analyze for pH using methods in accordance with 40 Code of Federal Regulations (CFR) 136 or use a calibrated portable instrument for pH.

ii. Dischargers using a calibrated portable instrument for pH shall ensure that all field measurements are conducted in accordance with the accompanying

manufacturer's instructions.

c. Alternative Discharge Locations

i. The Discharger is required to identify, when practicable, alternative discharge locations for any discharge locations identified in accordance with Section B.2.c. if the Facility's discharge locations are:

a) Affected by storm water run-on from surrounding areas that cannot be controlled; and/or,

b) Difficult to observe or sample (e.g. submerged discharge outlets, dangerous discharge location accessibility).

ii. The Discharger shall submit and certify to the Santa Ana Water Board any alternative discharge location or revisions to the alternative discharge locations in the Monitoring Implementation Plan.

d. Representative Sampling Reduction

i. The Discharger may reduce the number of locations to be sampled in each drainage area (e.g., roofs with multiple downspouts, loading/unloading areas with multiple storm drains) if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) of the drainage area for each location to be sampled are substantially similar to one another. To qualify for the Representative Sampling Reduction, the Discharger shall provide a Representative Sampling Reduction justification in the Monitoring Implementation Plan section of the SWPPP.

ii. The Representative Sampling Reduction justification shall include:

a) Identification and description of each drainage area and corresponding discharge location(s);

b) A description of the industrial activities that occur throughout the drainage area;

c) A description of the BMPs implemented in the drainage area;

d) A description of the physical characteristics of the drainage area;

e) A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar; and,

f) An identification of the discharge location(s) selected for representative sampling, and rationale demonstrating that the selected location(s) to be sampled are representative of the discharge from the entire drainage

area.

iii. A Discharger that satisfies the conditions of subsection d.ii.a) through e) above shall submit and certify to the Santa Ana Water Board the revisions to the Monitoring Implementation Plan that includes the Representative Sampling Reduction justification.

iv. Upon submittal of the Representative Sampling Reduction justification, the Discharger may reduce the number of locations to be sampled in accordance with the Representative Sampling Reduction justification. The Santa Ana Water Board may reject the Representative Sampling Reduction justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Representative Sampling Reduction until the Santa Ana Water Board approves the Representative Sampling Reduction justification.

e. Qualified Combined Samples

i. The Discharger may authorize an analytical laboratory to combine samples of equal volume from as many as four (4) discharge locations if the industrial activities, BMPs, and physical characteristics (grade, surface materials, etc.) within each of the drainage areas are substantially similar to one another.

ii. The Qualified Combined Samples justification shall include:

a) Identification and description of each drainage area and corresponding discharge locations;

b) A description of the BMPs implemented in the drainage area;

c) A description of the industrial activities that occur throughout the drainage area;

d) A description of the physical characteristics of the drainage area; and,

e) A rationale that demonstrates that the industrial activities and physical characteristics of the drainage area(s) are substantially similar.

iii. A Discharger that satisfies the conditions of subsection e.ii.a) through d) above shall submit and certify to this Santa Ana Water Board the revisions to the Monitoring Implementation Plan that includes the Qualified Combined Samples justification.

iv. Upon submittal of the Qualified Combined Samples justification revisions in the Monitoring Implementation Plan, the Discharger may authorize the lab to combine samples of equal volume from as many as four (4) drainage

areas. The Santa Ana Water Board may reject the Qualified Combined Samples justification and/or request additional supporting documentation. In such instances, the Discharger is ineligible for the Qualified Combined Samples justification until the Santa Ana Water Board approves the Qualified Combined Samples justification.

i. Santa Ana Water Board approval is necessary to combine samples frommore than four (4) discharge locations.

f. Sample Collection and Visual Observation Exceptions

i. Sample collection and visual observations are not required under the following conditions:

a) During dangerous weather conditions such as flooding or electrical storms; or,

b) Outside of scheduled facility operating hours. The Discharger is not precluded from collecting samples or conducting visual observations outside of scheduled facility operating hours.

ii. In the event that samples are not collected, or visual observations are not conducted in accordance with Section B.2.d. due to these exceptions, an explanation shall be included in the Annual Report.

iii. Sample collection is not required for drainage areas with no exposure to industrial activities and materials in accordance with the definitions in Section F.

g. Sampling Frequency Reduction Certification

i. Dischargers are eligible to reduce the number of QSEs sampled each reporting year in accordance with the following requirements:

a) Results from four (4) consecutive QSEs that were sampled (QSEs may be from different reporting years) did not exceed any NALs as defined in Section C.1.; and

b) The Discharger is in full compliance with the requirements of this Order and has updated, certified and submitted to this Santa Ana Water Board all documents, data, and reports required by this Order during the time period in which samples were collected.

ii. The Santa Ana Water Board may notify the Discharger that it may not reduce the number of QSEs sampled each reporting year if the Discharger is subject to an enforcement action.

iii. An eligible Discharger shall certify to the Santa Ana Water Board that it meets the conditions in subsection g.i. above.

iv. Upon Sampling Frequency Reduction certification, the Discharger shall collect and analyze samples from one (1) QSE within the first half of each reporting year (July 1 to December 31), and one (1) QSE within the second half of each reporting year (January 1 to June 30). All other monitoring, sampling, and reporting requirements remain in effect.

v. A Discharger may reduce sampling per the Sampling Frequency Reduction certification unless notified by the Santa Ana Water Board that: (1) the Sampling Frequency Reduction certification has been rejected or (2) additional supporting documentation must be submitted. In such instances, a Discharger is ineligible for the Sampling Frequency Reduction until the Santa Ana Water Board provides Sampling Frequency Reduction certification approval. Revised Sampling Frequency Reduction certifications shall be certified and submitted to the Santa Ana Water Board by the Discharger.

vi. A Discharger loses its Sampling Frequency Reduction certification if a NAL exceedance occurs (Section C.1.).

C. EXCEEDANCE RESPONSE ACTIONS (ERAS)

1. NALs and NAL Exceedances

The Discharger shall perform sampling, analysis and reporting in accordance with the requirements of this Attachment (K) and shall compare the results to the two types of NAL values in Table 2 to determine whether either type of NAL has been exceeded for each applicable parameter. The two types of potential NAL exceedances are as follows:

a. Annual NAL exceedance: The Discharger shall determine the average concentration for each parameter using the results of all the sampling and analytical results for the entire facility for the reporting year (i.e., all "effluent" data). The Discharger shall compare the average concentration for each parameter to the corresponding annual NAL values in Table 1. For Dischargers using composite sampling or flow-weighted measurements in accordance with standard practices, the average concentrations shall be calculated in accordance with the U.S. EPA's *NPDES Storm Water Sampling Guidance Document*[1]. An annual NAL exceedance occurs when the average of all the analytical results for a parameter from samples taken within a reporting year exceeds the annual NAL value for that parameter listed in Table 1; and,

[1] U.S. EPA. *NPDES Storm Water Sampling Guidance Document*. http://www.epa.gov/npdes/pubs/owm0093.pdf. [as of February 4, 2014, or latest version]

b. Instantaneous maximum NAL exceedance: The Discharger shall compare all sampling and analytical results from each distinct sample (individual or combined as authorized by B.3.e) to the corresponding instantaneous maximum NAL values in Table 1. An instantaneous maximum NAL exceedance occurs when two (2) or more analytical results from samples taken for any single parameter within a reporting year exceed the instantaneous maximum NAL value (for TSS and O&G) or are outside of the instantaneous maximum NAL range for pH.

2. Baseline Status

On the effective date of this Order, the Discharger has a Baseline status for all parameters.

3. Level 1 Status

The Discharger's Baseline status for any given parameter shall change to Level 1 status if sampling results indicate an NAL exceedance for that same parameter. Level 1 status will commence on July 1 following the reporting year during which the exceedance(s) occurred[2].

a. Level 1 ERA Evaluation

i. By October 1 following commencement of Level 1 status for any parameter with sampling results indicating an NAL exceedance, the Discharger shall:

ii. Complete an evaluation, with the assistance of a Qualified Industrial Storm Water Practitioner (QISP), of the industrial pollutant sources at the facility that are or may be related to the NAL exceedance(s); and,

iii. Identify in the evaluation the corresponding BMPs in the SWPPP and any additional BMPs and SWPPP revisions necessary to prevent future NAL exceedances and to comply with the requirements of this Order. Although the evaluation may focus on the drainage areas where the NAL exceedance(s) occurred, all drainage areas shall be evaluated.

b. Level 1 ERA Report

i. Based upon the above evaluation, the Discharger shall, as soon as practicable but no later than January 1 following commencement of Level 1 status :

[2] For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status once those results have been reported.

a) Revise the SWPPP as necessary and implement any additional BMPs identified in the evaluation;

b) Certify and submit to this Regional Water Board a Level 1 ERA Report prepared by a QISP that includes the following:

1) A summary of the Level 1 ERA Evaluation required in subsection 3.a. above; and,

2) A detailed description of the SWPPP revisions and any additional BMPs for each parameter that exceeded an NAL.

c) Certify and submit to this Regional Water Board the QISP's identification number, name, and contact information (telephone number, e-mail address).

ii. A Discharger's Level 1 status for a parameter will return to Baseline status once a Level 1 ERA report has been completed, all identified additional BMPs have been implemented, and results from four (4) consecutive QSEs that were sampled subsequent to BMP implementation indicate no additional NAL exceedances for that parameter.

c. NAL Exceedances Prior to Implementation of Level 1 Status BMPs.

Prior to the implementation of an additional BMP identified in the Level 1 ERA Evaluation or October 1, whichever comes first, sampling results for any parameter(s) being addressed by that additional BMP will not be included in the calculations of annual average or instantaneous NAL exceedances.

4. Level 2 Status

A Discharger's Level 1 status for any given parameter shall change to Level 2 status if sampling results indicate an NAL exceedance for that same parameter while the Discharger is in Level 1. Level 2 status will commence on July 1 following the reporting year during which the NAL exceedance(s) occurred[3].

a. Level 2 ERA Action Plan

i. Dischargers with Level 2 status shall certify and submit to this Regional Water Board a Level 2 ERA Action Plan prepared by a QISP that addresses each new Level 2 NAL exceedance by January 1 following the reporting year during which the NAL exceedance(s) occurred. For each new Level 2 NAL exceedance, the Level 2 Action Plan will identify which of the demonstrations

[3] For all sampling results reported before June 30th of the preceding reporting year. If sample results indicating an NAL exceedance are submitted after June 30th, the Discharger will change status upon the date those results have been reported into CIWQS.

in subsection 4.b.i through iii the Discharger has selected to perform. A new Level 2 NAL exceedance is any Level 2 NAL exceedance for 1) a new parameter in any drainage area, or 2) the same parameter that is being addressed in an existing Level 2 ERA Action Plan in a different drainage area.

ii. The Discharger shall certify and submit to this Regional Water Board the QISP's identification number, name, and contact information (telephone number, e-mail address) if this information has changed since previous certifications.

iii. The Level 2 ERA Action Plan shall at a minimum address the drainage areas with corresponding Level 2 NAL exceedances.

iv. All elements of the Level 2 ERA Action Plan shall be implemented as soon as practicable and completed no later than 1 year after submitting the Level 2 ERA Action Plan.

v. The Level 2 ERA Action Plan shall include a schedule and a detailed description of the tasks required to complete the Discharger's selected demonstration(s) as described below in Section 4.b.i through iii.

b. Level 2 ERA Technical Report

On January 1 of the reporting year following the submittal of the Level 2 ERA Action Plan, a Discharger with Level 2 status shall certify and submit a Level 2 ERA Technical Report prepared by a QISP that includes one or more of the following demonstrations:

i. Industrial Activity BMPs Demonstration

This shall include the following requirements, as applicable:

a) Shall include a description of the industrial pollutant sources and corresponding industrial pollutants that are or may be related to the NAL exceedance(s);

b) Shall include an evaluation of all pollutant sources associated with industrial activity that are or may be related to the NAL exceedance(s);

c) Where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with storm water discharge specification of this Order and are expected to eliminate future NAL exceedance(s), the Discharger shall provide a description and analysis of all implemented BMPs;

d) In cases where all of the Discharger's implemented BMPs, including additional BMPs identified in the Level 2 ERA Action Plan, achieve compliance with the storm water discharge specification of this Order but are not expected to eliminate future NAL exceedance(s), the Discharger shall provide, in addition to a description and analysis of all implemented BMPs:

1) An evaluation of any additional BMPs that would reduce or prevent NAL exceedances;

2) Estimated costs of the additional BMPs evaluated; and,

3) An analysis describing the basis for the selection of BMPs implemented in lieu of the additional BMPs evaluated but not implemented.

e) The description and analysis of BMPs required in subsection i.c) above shall specifically address the drainage areas where the NAL exceedance(s) responsible for the Discharger's Level 2 status occurred, although any additional Level 2 ERA Action Plan BMPs may be implemented for all drainage areas; and,

f) If an alternative design storm standard for treatment control BMPs (in lieu of the design storm standard for treatment control BMPs in Section H.5 of Attachment J of this Order will achieve compliance with the storm water discharge specification of this Order, the Discharger shall provide an analysis describing the basis for the selection of the alternative design storm standard.

ii. Non-Industrial Pollutant Source Demonstration

This shall include:

a) A statement that the Discharger has determined that the exceedance of the NAL is attributable solely to the presence of non-industrial pollutant sources. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance.) The sources shall be identified as either run-on from adjacent properties, aerial deposition from man- made sources, or as generated by on-site non-industrial sources

b) A statement that the Discharger has identified and evaluated all potential pollutant sources that may have commingled with storm water associated with the Discharger's industrial activity and may be contributing to the NAL exceedance

c) A description of any on-site industrial pollutant sources and corresponding industrial pollutants that are contributing to the NAL exceedance;

d) An assessment of the relative contributions of the pollutant from (1) storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition and (2) the storm water associated with the Discharger's industrial activity;

e) A summary of all existing BMPs for that parameter; and,

f) An evaluation of all on-site/off-site analytical monitoring data demonstrating that the NAL exceedances are caused by pollutants in storm water run-on to the facility from adjacent properties or non-industrial portions of the Discharger's property or from aerial deposition.

iii. Natural Background Pollutant Source

Demonstration This shall include:

a) A statement that the Discharger has determined that the NAL exceedance is attributable solely to the presence of the pollutant in the natural background that has not been disturbed by industrial activities. (The pollutant may also be present due to industrial activities, in which case the Discharger must demonstrate that the pollutant contribution from the industrial activities by itself does not result in an NAL exceedance);

b) A summary of all data previously collected by the Discharger, or other identified data collectors, that describes the levels of natural background pollutants in the storm water discharge;

c) A summary of any research and published literature that relates the pollutants evaluated at the facility as part of the Natural Background Source Demonstration;

d) Map showing the reference site location in relation to facility along with available land cover information;

e) Reference site and test site elevation;

f) Available geology and soil information for reference and test sites;

g) Photographs showing site vegetation;

h) Site reconnaissance survey data regarding presence of roads, outfalls, or other human-made structures; and

i) Records from relevant state or federal agencies indicating no known mining, forestry, or other human activities upstream of the proposed reference site.

c. Level 2 ERA Technical Report Submittal

i. The Discharger shall certify and submit to this Santa Ana Water Board the Level 2 ERA Technical Report described in Section 4.b above.

ii. The Regional Water Board will review the submitted Level 2 ERA Technical Reports. Upon review of a Level 2 ERA Technical Report, the Santa Ana Water Board may reject the Level 2 ERA Technical Report and direct the Discharger to take further action(s) to comply with this Order.

iii. Dischargers with Level 2 status who have submitted the Level 2 ERA Technical Report are only required to annually update the Level 2 ERA Technical Report based upon additional NAL exceedances of the same parameter and same drainage area (if the original Level 2 ERA Technical Report contained an Industrial Activity BMP Demonstration and the implemented BMPs were expected to eliminate future NAL exceedances in accordance with Section 4.b.i.b), facility operational changes, pollutant source(s) changes, and/or information that becomes available via compliance activities (monthly visual observations, sampling results, annual evaluation, etc.). The Level 2 ERA Technical Report shall be prepared by a QISP and be certified and submitted via CIWQS by the Discharger with each Annual Report as an attachment. If there are no changes prompting an update of the Level 2 ERA Technical Report, as specified above, the Discharger will provide this certification in the Annual Report that there have been no changes warranting re-submittal of the Level 2 ERA Technical Report.

iv. Dischargers are not precluded from submitting a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status if information is available to adequately prepare the report and perform the demonstrations described above. A Discharger who chooses to submit a Level 2 ERA Action Plan or ERA Technical Report prior to entering Level 2 status will automatically be placed in Level 2 in accordance to the Level 2 ERA schedule.

d. Eligibility for Returning to Baseline Status

i. Dischargers with Level 2 status who submit an Industrial Activity BMPs Demonstration in accordance with subsection b.i.a) through c) above and

have implemented BMPs to prevent future NAL exceedance(s) for the Level 2 parameter(s) shall return to baseline status for that parameter, if results from four (4) subsequent consecutive QSEs sampled indicate no additional NAL exceedance(s) for that parameter(s). If future NAL exceedances occur for the same parameter(s), the Discharger's Baseline status will return to Level 2 status on July 1 in the subsequent reporting year during which the NAL exceedance(s) occurred. These Dischargers shall update the Level 2 ERA Technical Report as required above in Section 4.c.iii.

ii. Dischargers are ineligible to return to baseline status if they submit any of the following:

a) A industrial activity BMP demonstration in accordance with subsection b.i.d) above;

b) An non-industrial pollutant source demonstration; or,

c) A natural background pollutant source demonstration.

e. Level 2 ERA Implementation Extension

i. Dischargers that need additional time to submit the Level 2 ERA Technical Report shall be automatically granted a single time extension for up to six (6) months upon submitting the following items to this Regional Water Board, as applicable:

a) Reasons for the time extension;

b) A revised Level 2 ERA Action Plan including a schedule and a detailed description of the necessary tasks still to be performed to complete the Level 2 ERA Technical Report; and

c) A description of any additional temporary BMPs that will be implemented while permanent BMPs are being constructed.

ii. The Regional Water Boards will review Level 2 ERA Implementation Extensions for completeness and adequacy. Requests for extensions that total more than six (6) months are not granted unless approved in writing by the Water Boards. The Water Boards may (1) reject or revise the time allowed to complete Level 2 ERA Implementation Extensions, (2) identify additional tasks necessary to complete the Level 2 ERA Technical Report, and/or (3) require the Discharger to implement additional temporary BMPs.

D. ANNUAL COMPREHENSIVE FACILITY COMPLIANCE EVALUATION (ANNUAL EVALUATION)

The Discharger shall conduct one Annual Evaluation for each reporting year (July 1 to June 30). If the Discharger conducts an Annual Evaluation fewer than eight (8) months, or more than sixteen (16) months, after it conducts the previous Annual Evaluation, it shall document the justification for doing so. The Discharger shall revise the SWPPP, as appropriate, and implement the revisions within 90 days of the Annual Evaluation. At a minimum, Annual Evaluations shall consist of:

1. A review of all sampling, visual observation, and inspection records conducted during the previous reporting year;

2. An inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants entering the storm water conveyance system;

3. An inspection of all drainage areas previously identified as having no exposure to industrial activities and materials in accordance with the definitions in Section F;

4. An inspection of equipment needed to implement the BMPs;

5. An inspection of any BMPs;

6. A review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if the BMPs are properly designed, implemented, and are effective in reducing and preventing pollutants in industrial storm water discharges and authorized NSWDs; and,

7. An assessment of any other factors needed to comply with the requirements in Section E.2.

E. ANNUAL REPORT

1. The Discharger shall certify and submit via CIWQS an Annual Report no later than July 15th following each reporting year.

2. The Discharger shall include in the Annual Report:

   a. A Compliance Checklist that indicates whether the Discharger complies with, and has addressed all applicable requirements of this Order;

   b. An explanation for any non-compliance of requirements within the reporting year, as indicated in the Compliance Checklist;

   c. An identification, including page numbers and/or sections, of all revisions made to the SWPPP within the reporting year; and,

d. The date(s) of the Annual Evaluation.

F. CONDITIONAL EXCLUSION - NO EXPOSURE CERTIFICATION (NEC)

1. Discharges composed entirely of storm water that has not been exposed to industrial activity are not industrial storm water discharges. Dischargers are conditionally excluded from complying with the SWPPP and monitoring requirements of this Order if all of the following conditions are met:

   a. There is no exposure of Industrial Materials and Activities to rain, snow, snowmelt, and/or runoff;

   b. All unauthorized NSWDs have been eliminated and all authorized NSWDs meet the conditions of Section IV of the Statewide Industrial General Permit Order No. 2014-0057-DWQ;

   c. The Discharger has certified and submitted to this RegionalWater Board a NEC; and,

   d. The Discharger has satisfied all other requirements of this Section.

2. NEC Specific Definitions

   a. No Exposure - all Industrial Materials and Activities are protected by a Storm- Resistant Shelter to prevent all exposure to rain, snow, snowmelt, and/or runoff.

   b. Industrial Materials and Activities - includes, but is not limited to, industrial material handling activities or equipment, machinery, raw materials, intermediate products, by-products, final products, and waste products.

   c. Material Handling Activities - includes the storage, loading and unloading, transportation, or conveyance of any industrial raw material, intermediate product, final product, or waste product.

   d. Sealed - banded or otherwise secured, and without operational taps or valves.

   e. Storm-Resistant Shelters - includes completely roofed and walled buildings or structures. Also includes structures with only a top cover supported by permanent supports but with no side coverings, provided material within the structure is not subject to wind dispersion (sawdust, powders, etc.), or track- out, and there is no storm water discharged from within the structure that comes into contact with any materials.

3. NEC Qualifications

   To qualify for an NEC, a Discharger shall:

a. Except as provided in subsection 4 below, provide a Storm-Resistant Shelter to protect Industrial Materials and Activities from exposure to rain, snow, snowmelt, run-on, and runoff;

b. Inspect and evaluate the facility annually to determine that storm water exposed to industrial materials or equipment has not and will not be discharged to waters of the United States. Evaluation records shall be maintained for five (5) years in accordance with Section I.A.8. of Attachment E of this Order;

c. Register for NEC coverage by certifying that there are no discharges of storm water contaminated by exposure to Industrial Materials and Activities from areas of the facility subject to this Order, and certify that all unauthorized NSWDs have been eliminated and all authorized NSWDs meet the applicable conditions of Section IV of the Statewide Industrial General Permit Order No. 2014-0057-DWQ (Authorized NSWDs); and,

d. Submit a NEC to this Regional Water Board by October 1, 2015.

4. NEC Industrial Materials and Activities - Storm-Resistant Shelter Not Required

   To qualify for NEC coverage, a Storm-Resistant Shelter is not required for the following:

   a. Drums, barrels, tanks, and similar containers that are tightly Sealed, provided those containers are not deteriorated, do not contain residual industrial materials on the outside surfaces, and do not leak;

   b. Adequately maintained vehicles used in material handling;

   c. Final products, other than products that would be mobilized in storm water discharge (e.g., rock salt);

   d. Any Industrial Materials and Activities that are protected by a temporary shelter for a period of no more than ninety (90) days due to facility construction or remodeling; and,

   e. Any Industrial Materials and Activities that are protected within a secondary containment structure that will not discharge storm water to waters of the United States.

5. NEC Limitations

   a. NEC coverage is available on a facility-wide basis only, not for individual outfalls. If a facility has industrial storm water discharges from one or more drainage areas that require coverage, the Discharger shall register for

coverage for the entire facility through the Regional Water Board. Any drainage areas on that facility that would otherwise qualify for NEC coverage may be specially addressed in the facility SWPPP by including an NEC Checklist and a certification statement demonstrating that those drainage areas of the facility have been evaluated; and that none of the Industrial Materials or Activities listed in subsection 3 above are, or will be in the foreseeable future, exposed to precipitation.

b. If circumstances change and Industrial Materials and Activities become exposed to rain, snow, snowmelt, and/or runoff, the conditions for this exclusion shall no longer apply. In such cases, the Discharger may be subject to enforcement for discharging without a permit. A Discharger with NEC coverage that anticipates changes in circumstances should notify this Regional Water Board and adhere to all storm water requirements of this Order at least seven (7) days before anticipated exposure.

c. The Regional Water Board may deny NEC coverage and require the Discharge to comply with all storm water requirements of this Order:

i. Storm water is exposed to Industrial Materials and Activities; and/or

ii. The discharge has a reasonable potential to cause or contribute to an exceedance of an applicable water quality standards.

6. NEC Report Required for Initial NEC Coverage

The Discharger shall submit to the Santa Ana Water Board a report for NEC coverage to document the applicability of the conditional exclusion:

a. The NEC form, which includes:

i. The legal name, postal address, telephone number, and e-mail address of the Discharger;

ii. The facility business name and physical mailing address, the county name, and a description of the facility location if the facility does not have a physical mailing address; and,

iii. Certification by the Discharger that the NEC report submitted is correct and true and the conditions of no exposure have been met.

b. An NEC Checklist prepared by the Discharger demonstrating that the facility has been evaluated; and that none of the following industrial materials or activities are, or will be in the foreseeable future, exposed to precipitation:

i. Using, storing or cleaning industrial machinery or equipment, and areas where residuals from using, storing or cleaning industrial machinery or equipment remain and are exposed;

ii. Materials or residuals on the ground or in storm water inlets from spills/leaks;

iii. Materials or products from past industrial activity;

iv. Material handling equipment (except adequately maintained vehicles);

v. Materials or products during loading/unloading or transporting activities;

vi. Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to storm water does not result in the discharge of pollutants);

vii. Materials contained in open, deteriorated or leaking storage drums, barrels, tanks, and similar containers;

viii. Materials or products handled/stored on roads or railways owned or maintained by the Discharger;

ix. Waste material (except waste in covered, non-leaking containers, e.g., dumpsters);

x. Application or disposal of processed wastewater (unless already covered by an NPDES permit); and,

xi. Particulate matter or visible deposits of residuals from roof stacks/vents evident in the storm water outflow.

c. Site Map (see Attachment J of this Order).

7. Requirements for Annual NEC Coverage Recertification

   By October 1 of each reporting year beginning in 2022, any Discharger who has previously registered for NEC coverage shall either submit and certify a NEC demonstrating that the facility has been evaluated, and that none of the Industrial Materials or Activities listed above are, or will be in the foreseeable future, exposed to precipitation, or comply with all storm water requirements of this Order.

8. NEC Certification Statement

   All NEC certifications and re-certifications shall include the following certification statement:

I certify under penalty of law that I have read and understand the eligibility requirements for claiming a condition of 'no exposure' and obtaining an exclusion from NPDES storm water permitting; and that there are no discharges of storm water contaminated by exposure to industrial activities or materials from the industrial facility identified in this document (except as allowed in subsection C above). I understand that I am obligated to submit a no exposure certification form annually to the State Water Board and, if requested, to the operator of the local Municipal Separate Storm Sewer System (MS4) into which this facility discharges (where applicable). I understand that I must allow the Water Board staff, or MS4 operator where the discharge is into the local MS4, to perform inspections to confirm the condition of no exposure and to make such inspection reports publicly available upon request. I understand that I must obtain coverage under an NPDES permit prior to any point source discharge of storm water from the facility. 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 gathered and evaluated the information submitted.
Based upon my inquiry of the person or persons who manage the system, or those persons directly involved in gathering the information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G. TRAINING QUALIFICATIONS

1. General

   a. A Qualified Industrial Storm Water Practitioner (QISP) is a person (either the Discharger or a person designated by the Discharger) who has completed a State Water Board-sponsored or approved QISP training course[4], and has registered as a QISP via SMARTS. Upon completed registration the State Water Board will issue a QISP identification number.

   b. The Executive Director of the State Water Board or an Executive Officer of a Regional Water Board may rescind any QISP's registration if it is found that the QISP has repeatedly demonstrated an inadequate level of performance in completing the QISP requirements in this General Permit. An individual whose QISP registration has been rescinded may request that the State Water Board review the rescission. Any request for review must be received by the State Water Board no later than 30 days of the date that the individual received

[4] A specialized self-guided State Water Board-sponsored registration and training program will be available as an option for CPBELSG licensed professional civil, mechanical, industrial, and chemical engineers and professional geologists by the effective date of this General Permit

written notice of the rescission.

c. Dischargers with Level 1 status shall:

i. Designate a person to be the facility's QISP and ensure that this person has attended and satisfactorily completed the State Water Board-sponsored or approved QISP training course.

ii. Ensure that the facility's designated QISP provides sufficient training to the appropriate team members assigned to perform activities required by this General Permit.

ATTACHMENT L – CHINO BASIN MAXIMUM BENEFIT COMMITMENTS

Table 5-8a of Resolution No. R8-2004-0001

Chino Basin Maximum Benefit Commitments

Description of Commitment	Compliance Date – as soon as possible, but no later than
1. Surface Water Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005 (complied)
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Quarterly data report submittal	c. April 15, July 15, October 15, January 15
d. Annual data report submittal	a. February 15th
2. Groundwater Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005(complied)
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Annual data report submittal	c. February 15th
3. Chino Desalters	
a. Chino 1 desalter expansion to 10 MGD	a. Prior to recharge of recycled water
b. Chino 2 desalter at 10 MGD design	b. Recharge of recycled water allowed once award of contract and notice to proceed issued for construction of desalter treatment plant
4. Future desalters plan and schedule submittal	October 1, 2005 Implement plan and schedule upon Regional Board approval
5. Recharge facilities (17) built and in operation	June 30, 2005 (Partially complied)
6. IEUA wastewater quality improvement plan and schedule submittal	60 days after agency-wide 12 month running average effluent TDS quality equals or exceeds 545 mg/L for 3 consecutive months or agency-wide 12 month running average TIN equals or exceeds 8 mg/L in any month. Implement plan and schedule upon approval by Regional Board

Table 5-8a of Resolution No. R8-2004-0001

Chino Basin Maximum Benefit Commitments (cont.)

Description of Commitment	Compliance Date – as soon as possible, but no later than
7. Recycled water will be blended with other recharge sources so that the 5-year running average TDS and nitrate-nitrogen concentrations of water recharged are equal to or less than the "maximum benefit" water quality objectives for the affected Management Zone (Chino North or Cucamonga).	Compliance must be achieved by end of 5th year after initiation of recycled water recharge operations.
a. Submit a report that documents the location, amount of recharge, and TDS and nitrogen quality of stormwater recharge before the OBMP recharge improvements were constructed and what is projected to occur after the recharge improvements are completed	a. Prior to initiation of recycled water recharge
b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of CBW/IEUA enhanced recharge facilities.	b. Annually, by February 15th, after initiation of construction of basins/other facilities to support enhanced stormwater recharge.
8. Hydraulic Control Failure	
a. Plan and schedule to correct loss of hydraulic control	a. 60 days from Regional Board finding that hydraulic control is not being maintained
b. Achievement and maintenance of hydraulic control	b. In accordance with plan and schedule approved by Regional Board. The schedule shall assure that hydraulic control is achieved as soon as possible but no later than 180 days after loss of hydraulic control is identified.
c. Mitigation plan for temporary failure to achieve/maintain hydraulic control	c. By January 23, 2005(complied). Implement plan upon Regional Board determination that hydraulic control is not being maintained.
9. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter