

California Regional Water Quality Control Board Santa Ana Region

Order No. R8-2019-0066
Amendment of Order No. R8-2015-0013, NPDES No. CA80000316
Waste Discharge Requirements and Master Reclamation Permit
For The
Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant
Riverside County

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

1. On July 24, 2015, the Santa Ana Water Board adopted Order No. R8-2015-0013 (hereinafter Order), NPDES No. CA80000316, prescribing waste discharge requirements, master reclamation permit, and NPDES permit for the Western Riverside County Regional Wastewater Authority's (hereinafter Discharger or WRCRWA) Western Riverside County Regional Wastewater Treatment Plant (hereinafter Facility).
2. WRCRWA is a Joint Power Authority that consists of the City of Norco, Jurupa Community Services District, Home Gardens Sanitary District, and Western Municipal Water District (WMWD). WRCRWA is the owner of the Facility, which is operated by WMWD.
3. The Facility has a permitted capacity of 14 MGD of disinfected tertiary treated wastewater effluent. Treated wastewater effluent is discharged through Discharge Point 001 (DP 001) to Reach 3 of Santa Ana River, which is within the Prado Basin Management Zone (PBMZ). The Santa Ana River is waters of the United States. Tertiary treated recycled water produced at the Facility is delivered to use sites overlying the Temescal and Arlington Groundwater Management Zones.
4. The Order includes in the Fact Sheet (Attachment F) details regarding the Discharger's plans to expand the Facility and included a list of additions of new treatment processes and/or the upgrade of existing ones. The Facility expansion was completed in late 2017 (the Notice of Completion was filed on January 19, 2018) and WRCRWA has been operating all of its new equipment and facilities since that time. The new treatment process additions and/or upgrades are listed as follows:
 - Headworks: Three (3) new ¼" fine screens, each with capacity of 17.5 mgd, with associated wash presses were installed. A new screening channel and

bypass channel was added to the two existing channels. The screens were installed in the channels with covers and integral odor control for headworks process. Minor changes were made to the grit trap to improve hydraulic conditions.

- Equalization Tank: A new 2.2 million gallon (180' x 120' x 15') concrete equalization tank was installed near the new primary clarifiers.
- Primary Treatment: Two (2) new 95' diameter primary clarifiers, including a splitter box, and a primary sludge pump station with two (2) sludge pumps were installed. The pumps are capable of 150gpm at 30' of Total Design Head (TDH) and pump the primary sludge directly to the digesters. The primary clarifiers are now completely covered. Additionally, a new biofilter system was installed to control odors.
- Biological Treatment: A second activated sludge basin was also constructed with a 600,000 gallon anoxic zone and a 1,290,000 gallon aerobic zone. The anoxic zone uses six eductor tube mixers. The aerobic zone uses removable diffuser grid assemblies. Air is supplied by two (1 duty/1 redundant) new blower units, which also provide air for the eductor tubes. The new blowers were installed in the blower building constructed as part of the earlier Aeration Upgrade Project. The oxidation ditch has eight axial propeller-type mixers to maintain flow velocity and promote mixed liquor suspension. The existing aerator/mixers in the existing ditch were replaced with more efficient propeller mixers. One (1) 130' diameter secondary clarifier was added, including a splitter box.
- Tertiary Treatment and Disinfection: Four (4) disc filters utilizing a cloth media were installed. A new chlorine contact basin (CCB) with 4 trains was also built with chlorine storage tanks and a chemical feed and monitoring system along with a sodium bisulfite storage tank, feed and dechlorination monitoring system. The tertiary system has a hydraulic capacity of up to 35 Million Gallons per Day (MGD) for peak wet weather flows. A tracer study was performed on the CCB's in September 2017.
- Solids Handling: Two disk thickeners were installed to provide Waste Activated Sludge (WAS) thickening. A building was constructed to house both thickeners adjacent to the existing solids handling building. The dewatering process was upgraded by replacing the three (3) existing centrifuges with new, higher capacity, more efficient, centrifuges. The aerobic digesters were converted to anaerobic digesters by installing digester covers, a pump mixing system, heating and biogas equipment. This includes two (2) heat exchangers, two (2)

boilers, and all necessary piping, pumps, flame and sediment traps, and flare. A Concrete Masonry Unit (CMU) building was constructed to house heating equipment. In anticipation of future capacity needs and uncertain future operating conditions, infrastructure provisions were included to allow for the future construction of a third digester. Those provisions include expanding the CMU building to accommodate future digester equipment, yard piping to the digester building and some site improvements. Solar drying beds were added to the facility, including floor heating using excess methane gas, and an odor control system.

- Recycled Water Facilities: It is planned for the recycled water produced at the Plant to be used by the member agencies. In order to fully utilize this resource, WRCRWA will be constructing additional recycled water distribution facilities. The existing flow equalization tank will be converted into a recycled water storage tank. The equalization tank water surface was covered with "Bird Balls" to reduce the potential for algae growth. This tank will serve as a wet well for the new recycled water pump station. Additionally, a new utility water pump station was constructed so that recycled water can be used at the treatment plant as utility water serving various purposes around the plant.
 - Electrical and SCADA Systems: As part of the Facility Expansion Project, several upgrades/modifications were made to the electrical and the Supervisory Control and Data Acquisition (SCADA) systems.
5. The State Water Resources Control Board's Division of Drinking Water (SWRCB's DDW) issued a letter dated December 13, 2017 addressed to the Santa Ana Water Board that memorialized their approval of the results of the tracer study conducted on the Facility's new chlorine contact basin. Additionally, DDW reviewed and approved a Title 22 Engineering report, dated June 2018, submitted by the Discharger for the Facility's new tertiary treatment system and DDW issued an approval letter dated August 2018 that was addressed to the Santa Ana Water Board.
 6. On April 9, 2019 WRCRWA submitted a Report of Waste Discharge (ROWD) that included details regarding the treatment improvements that were made to the Facility and requested an amendment of the Order to incorporate the treatment process changes and add pertinent chlorine disinfection performance requirement and final effluent limits. It is appropriate to amend the Order to update the description of the treatment processes, increase the design capacity of the secondary treatment to 14 MGD, and add the maximum daily effluent limit for Bis(2-ethylhexyl) phthalate (that was erroneously omitted), chlorine residual effluent limits, and applicable chlorine disinfection process performance requirements.
 7. In accordance with Water Code Section 13389, amending the waste discharge requirements for this discharge is exempt from those provisions of the California

Environmental Quality Act (CEQA) contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

8. The Santa Ana Water Board has notified the discharger and other interested agencies and persons of its intent to amend waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.
9. The Santa Ana Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. R8-2015-0013 be amended as follows:

1. Order No. R8-2015-0013, Findings, page 6, replace Section II.E., as follows:

E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636). This action also involves the re-issuance of waste discharge requirements for existing Facilities that discharge treated wastewater to land and as such, is exempt from the provisions of the California Environmental Quality Act (commencing with Section 21100) in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301. The Discharger completed the Facility enhancement and expansion project Environmental Impact Report (EIR) dated April 2010, SCH 2009091040. The Final EIR was certified in July 2013 and a subsequent Addendum to the Final EIR was certified in March 2014. Regional Board staff has reviewed the above-referenced CEQA documents and finds that if the Discharger complies with the requirements specified in this Order, the discharges regulated under this Order should not have any significant impact on the water quality of the receiving waters.

2. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 13, replace Table 6., as follows:

Table 6. Effluent Limitations at DP-001

Parameter	Units	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	Instantaneous Minimum Effluent Limit	Instantaneous Maximum Effluent Limit
Biochemical Oxygen	mg/L (Lb/day)	20 (2346)	30 (3503)			

Parameter	Units	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	Instantaneous Minimum Effluent Limit	Instantaneous Maximum Effluent Limit
Demand 5-day @ 20°C						
Total Suspended Solids	mg/L (Lb/day)	20 (2346)	30 (3503)			
pH ⁴	Standard units				6.5	8.5
Ammonia-Nitrogen	mg/L	5				
Bis(2-ethylhexyl) phthalate	µg/L	5.9		12		
Mercury	µg/L	0.051				
Total Chlorine Residual	mg/L					0.1

3. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 15, replace Section IV.A.1.e.(2), as follows:

(2) The disinfected effluent shall meet the following:

- (a) When chlorine disinfection process is utilized following filtration, a 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 time⁵ of at least 90 minutes⁶, based on peak dry weather design flow⁷ 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-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.
- (c) The weekly average concentration of total coliform bacteria shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml). (see Compliance

Determination VII.J.1., below)

- (d) 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.
 - (e) No total coliform bacteria sample shall exceed an MPN of 240 total coliform bacteria per 100 ml
- 4. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 15, renumber Section IV.A.1.g. as Section IV.A.1.f.
 - 5. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 15, add Section IV.A.1.g., as follows:
 - g. Total Chlorine Residual:
The discharge shall not exceed the following:
 - 1) 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;
 - 2) No individual excursion from 0.1 mg/L value shall exceed 5 minutes; and
 - 3) No individual excursion shall exceed 5.0 mg/L.
 - 6. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 15, add Footnotes 5, 6 and 7, as follows:
 - ⁵ Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hour period.
 - ⁶ The modal contact time requirement is applicable only to the use of recycled water and not to surface water discharges, provided the receiving water provides a 1:1 dilution. The receiving water considered here shall exclude upstream POTW effluent flow.
 - ⁷ "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.
 - 7. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 15, change existing footnote number 5 to the number 8 in Section IV.A.4.a. and at the bottom of the page.
 - 8. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page

18, modify Section IV.C.1.c.(2), as follows:

- (2) The disinfected effluent shall meet the following:
- (a) The weekly average total coliform bacteria^{6,9} shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
 - (b) The number of total coliform organism 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 sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.
 - (d) When chlorine disinfection process is utilized following filtration, a CT (the product of total chlorine residual and modal contact time¹⁰ 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.
 - (e) 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-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.

9. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 16, replace Table 7., as follows:

Table 7. Effluent Limitations at DP-001 Under 20:1 Dilution

Parameter	Units	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	Instantaneous Minimum Effluent Limit	Instantaneous Maximum Effluent Limit
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45			
Total Suspended Solids	mg/L	30	45			
pH ⁴	Standard units				6.5	8.5

Parameter	Units	Average Monthly Effluent Limit	Average Weekly Effluent Limit	Maximum Daily Effluent Limit	Instantaneous Minimum Effluent Limit	Instantaneous Maximum Effluent Limit
Bis(2-ethylhexyl) phthalate	µg/L	5.9		12		
Mercury	µg/L	0.051				
Total Chlorine Residual	mg/L					2.1

10. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 18, change existing footnote number 5 to the number 9 and existing footnote number 7 to number 11 in Section IV.C.1.c.2.a and IV.C.1.e, respectively and at the bottom of the page, as follows:

- ⁹ See Compliance Determination Section VII.J.1.
- ¹⁰ Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hour period.
- ¹¹ See Compliance Determination Section VII.J.2.

11. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 20, change existing footnote number 8 to the number 12 in Section IV.D.1. and the bottom of the page.

12. Order No. R8-2015-0013, Effluent Limitations and Discharge Specifications, page 30, change existing footnote number 9 to the number 13 and existing footnote number 10 to number 14 in Section VI.C.5.c.2 and VI.C.5.c.3, respectively and at the bottom of the page.

13. Attachment C, Flow Schematic, page C-1, replace page C-1 of Attachment C with page C-1 that is attached to this Order.

14. Attachment E, Monitoring Locations, page E-7, replace Table 2., as follows:

Table 2. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude and Longitude
(Influent)	M-INF	Headworks downstream of bar screen	33°55'48" & 117°36'14"

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude and Longitude
001	M-001	Effluent pump station for discharge to Reach 3 of Santa	33°55'36" & 117°36'16"
001	Storm-001	Stormwater pump station	33°55'36" & 117°36'17"
002	REC-001	Effluent to recycled water use area	33°55'48" & 117°36'14"
	R-001U	Receiving water, approximately 100 feet upstream of the discharge to Reach 3 of Santa Ana River.	33°55'13" & 117°36'18"
	R-001D	Receiving water, Reach 3 of Santa Ana River, 500 feet downstream of the discharge point.	33°55'09" & 117°36'22"
	R-002U	USGS Hydrologic Unit 18070203, San Bernardino Grant, 0.4 mile downstream from E. Street Bridge.	34°03'54" & 117°17'58"
	B-001	Before entering sludge disposal truck	33°55'46" & 117°36'15"

15. Attachment E, Effluent Monitoring Requirements to Surface Water, page E-10, modify Table 4. by inserting two additional rows for total chlorine residual and CT, as follows:

Table 4. Tertiary Effluent Monitoring at M-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Flow	mgd	Recorder/Totalizer	Continuous	See Section I.A.2. above, of this MRP
Specific Conductance	µmhos/cm	Recorder	Continuous	"
pH	pH units	Recorder	Continuous	"
Turbidity ⁶	NTU	Recorder	Continuous	"
Total Chlorine	mg/L	Recorder	Continuous	---

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Residual				
CT ⁷	mg-minutes/L	Recorder	Continuous ⁷	---
Coliform Organisms ⁸	MPN per 100 ml ⁸⁹	Grab	Daily	See Section I.A.2., above of this MRP
Ammonia-Nitrogen	mg/L	Grab	Biweekly	"
•••	•••	•••	•••	•••

16. Attachment E, Effluent Monitoring Requirements to Surface Water, page E-10, revise footnote number 7 to number 8 and footnote number 8 to 9, and add footnote number 7 as follows:

⁷ 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-hour period.

17. Attachment E, Effluent Monitoring Requirements to Surface Water, page E-11, change existing footnote number 9 to the number 10.
18. Attachment E, Effluent Monitoring Requirements to Surface Water, page E-12, change existing footnote numbers 10, 11 and 12, to footnote numbers 11, 12, and 13.
19. Attachment E, Effluent Monitoring Requirements to Surface Water, page E-13, change existing footnote numbers 13 and 14, to footnote numbers 14 and 15.
20. Attachment E, Whole Effluent Toxicity Testing Requirements, page E-15, change existing footnote number 15, to footnote number 16.
21. Attachment E, Reclamation Monitoring Requirements, page E-16, modify Table 5. by inserting one additional row for CT, as follows:

Table 5. Reclamation Monitoring at REC-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Recorder/Totalizer	Continuous	---
pH	Standard Units	Recorder/Totalizer	Continuous	---
CT ¹⁷	mg-minutes/L	Recorder	Continuous	---
Turbidity ¹⁸	NTU	Recorder	Continuous	"
Coliform Organisms	MPN per 100 ml	Grab	Daily	"
•••	•••	•••	•••	•••

22. Attachment E, Reclamation Monitoring Requirements, page E-16, revise footnote number 16 to number 18, and add footnote number 17 as follows:

¹⁷ CT is the product of total chlorine residual and modal contact time measured at the same point.

23. Attachment E, Other Monitoring Requirements, page E-20, change existing footnote number 17 to footnote number 19.
24. Attachment E, Other Monitoring Requirements, page E-21, change existing footnote number 18 to footnote number 20.
25. Attachment E, Reporting Requirements, page E-22, change existing footnote number 19 to footnote number 21.
26. Attachment E, Reporting Requirements, page E-23, modify Table 8. by inserting one additional row for Total Chlorine Residual, as follows:

Table 8. Reporting Requirements

Parameter	Measurement
Flow	Daily total flow
pH	Daily High and daily low
Total Chlorine Residual	Daily Maximum
Electrical Conductivity	Daily High
Turbidity	Daily maximum

27. Attachment E, Reporting Requirements, page E-23, change existing footnote number 20 to footnote number 22.
28. Attachment E, Reporting Requirements, page E-26, change existing footnote number 21 to footnote number 23.
29. Attachment F, Permit Information, page F-4, add three paragraphs at the end of Section I.C., as follows:

The Regional Board issued the current Order No. R8-2015-0013 as part of its 2015 permit renewal. During the permit renewal application process, WRCRWA notified the Santa Ana Regional Water Quality Control Board (RWQCB) of a planned expansion that included a list of new and/or upgraded facilities, including a change in the disinfection process from a ultra-violet disinfection system to chlorine contact basins.

The State Water Resources Control Board's Division of Drinking Water (SWRCB's DDW) issued a letter dated December 13, 2017 addressed to the Santa Ana Regional Water Board that memorialized their approval of the results of the tracer study conducted on the Facility's new chlorine contact basin. Additionally, DDW reviewed and approved a Title 22 Engineering report, dated June 2018, submitted by the Discharger for the Facility's new tertiary treatment system and DDW issued an approval letter dated August 2018 that was addressed to the Santa Ana Regional Water Board.

On April 9, 2019 WRCRWA submitted a Report of Waste Discharge (ROWD) to initiate the Order/Permit amendment process. The ROWD details the improvements that were made to the WRCRWA's treatment plant and requested an amendment of its waste discharge requirements and master reclamation permit to reflect the change in the plant's treatment process.

30. Attachment F, Facility Description, page F-5, replace Section II.A.2., as follows:

In 1998, WRCRWA completed construction of the WRCRWTP. At that time the Facility was a municipal wastewater treatment plant with primary, secondary, and tertiary treatment with a design capacity of 8 million gallons per day (mgd). The Facility is located at 14634 River Road, Eastvale, Riverside County. It is situated north of the Santa Ana River about 3 miles northeast of Prado Dam, west of the intersection of Archibald Avenue and River Road, west of the City of Norco, and northwest of the City of Corona. This Facility treats residential, commercial, and industrial wastes from areas within its service area in western Riverside County. Currently the Facility serves a population of

approximately 117,000, of which 7,000 are from HGSD, 28,000 from Norco, 44,000 from JCSD, 9,000 from WMWD, and has the ability to accept flow from an additional population of 30,000 from the City of Corona. After undergoing an expansion that was completed in late 2017, the design capacity of the Facility is now 14 mgd. The Facility currently treats on average just under 8.0 mgd.

31. Attachment F, Facility Description, page F-5 thru F-6, replace Section II.A.3 and Table 3., as follows:

3. Facility Design Characteristics

The current design capacity is 14 mgd with a peak capacity of 19 mgd for up to 4 hours.

Table 3 provides the treatment processes and capacities of the Facility.

Table 3. WRCRWTP Treatment Processes

Primary Treatment	Flow Equalization	Secondary Treatment	Tertiary Treatment
14 mgd headworks, biofilter, 3 fine screens, grit chamber, 2 primary clarifiers	2.2 MG equalization tank	2 bioreactors (10 MGD and 4 MGD) with anoxic zones and aerobic zones, three circular secondary clarifiers	4 disc-filters, chlorine contact basin

Attachment B provides a location map for the Facility.

Attachment C provides a treatment flow schematic for the Facility.

32. Attachment F, Facility Description, page F-6, modify Section II.A.4. as follows:

4. Biosolids/Sludge Handling Practices

The solids handling facility consists of the following:

- a. Two anaerobic digesters,
- b. Three centrifuges
- c. Dewatered sludge is hauled away to a composting facility.

33. Attachment F, Facility Description, page F-9 and F-10, replace Section II.E., as follows:

E. Planned Changes

The Discharger has no changes planned for the Facility.

34. Attachment F, Applicable Plans, Policies, and Regulations, page F-10, modify Section III.B. as follows:

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636). This action also involves the re-issuance of waste discharge requirements for existing Facilities that discharge treated wastewater to land and as such, is exempt from the provisions of the California Environmental Quality Act (commencing with Section 21100) in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301. The Discharger completed the Facility enhancement and expansion project Environmental Impact Report (EIR) dated April 2010, SCH 2009091040. The Final EIR was certified in July 2013 and a subsequent Addendum to the Final EIR was certified in March 2014. Regional Water Board staff has reviewed the above-referenced CEQA documents and finds that if the Discharger complies with the requirements specified in this Order there should be no significant impact on the water quality of the receiving waters.

35. Attachment F, Rationale For Effluent Limitations and Discharge Specifications, page F-16, insert a row for Total Chlorine Residual into Table 8., as follows:

Table 8. Applicable Basin Plan Surface Water Quality Objectives

Constituents	Basis for Limitations
Ammonia Nitrogen	Dissociates under certain conditions to the toxic un-ionized form. Thus nitrogen discharges to surface water pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The Basin Plan specifies total ammonia and un-ionized ammonia objectives and an effluent limit of 5.0 mg/L for discharges to Santa Ana River, Reach 3.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the

Constituents	Basis for Limitations
	water. A pH range of 6.5 to 8.5 for surface water discharges is specified.
Total Chlorine Residual	Chlorine and its reaction products can be 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.
Oil & Grease	Oil and related materials have a high surface tension and are not soluble in water, resulting in odors and visual impacts.
Total Dissolved Solids	High levels of TDS can adversely impact aquatic life. The TDS limit for surface water discharges is based on the amended Basin Plan <u>waste load allocation of 625 mg/L and surface water discharge flow at 14 MGD.</u>
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 amended Basin <u>Plan wasteload allocation of 10.0 mg/L and surface water discharge flow at 14MGD.</u>

36. Attachment F, Rationale for Effluent Limitations and Discharge Specifications, page F-22, insert a row at the end of Table 13. for Total Chlorine Residual, as follows:

Table 13. Summary of Water Quality-Based Effluent Limits for DP-001

Parameter	Units	Effluent Limitations					Basis
		Average Monthly or as noted herein	Average Weekly	Max Daily	Instantaneous Minimum	Instantaneous Maximum	
BOD ₅	mg/L	20	30	--	--	--	PO, BPJ
Total Suspended Solids	mg/L	20	30	--	--	--	PO, BPJ
Ammonia Nitrogen	mg/L	5	--	--	--	--	BP
TDS	mg/L	625 (12-M avg), 14 mgd flow, or 250+TDS in water supply	--	--	--	--	BP

Parameter	Units	Effluent Limitations					Basis
		Average Monthly or as noted herein	Average Weekly	Max Daily	Instantaneous Minimum	Instantaneous Maximum	
TIN	mg/L	10 (12-M avg), 14 mgd flow	--	--	--	--	BP
pH	Std. Unit	--	--	--	6.5	8.5	PO, BP
Bis(2-ethylhexyl) phthalate	µg/L	5.9	--	12	--	--	CTR, SIP
Coliform	MPN	--	2.2 Median of last 7 days	--	--	--	PO, Title 22
Mercury	µg/L	0.051	--	--	--	--	CTR
Total Chlorine Residual	mg/L	--	--	--	--	0.1	BP

Notes: PO= Previous Order, R8-2002-0024; BPJ=best professional judgment; BP= Basin Plan.

37. These amendments shall become effective upon the adoption of this Order.

38. All other conditions and requirements of Order No. R8-2015-0013, including Attachments, shall remain unchanged.

I, Hope A. Smythe, Executive Officer, do hereby certify that the forgoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on December 6, 2019.

Original Signed by
 Hope A. Smythe
 Executive Officer