IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point No. 001

Effective immediately unless otherwise specified, the Discharger shall maintain compliance with the following final effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program.

1. Final Effluent Limitations – Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations specified in Table 6:

Table 6. Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Biochemical Oxygen Demand, 5-day @ 20°C[2]	mg/L	10	15	20	--	--
	lbs/day[1]	15,100	22,700	30,200	--	--
Total Suspended Solids[2]	mg/L	10	15	20	--	--
	lbs/day[1]	15,100	22,700	30,200	--	--
pH	standard units	--	--	--	6.0	8.0
Priority Pollutants						
Bis(2-ethylhexyl)phthalate	µg/L	--	--	13	--	--
Carbon Tetrachloride	µg/L	--	--	5.3	--	--
Chlorodibromomethane[3] (prior to nitrification facilities operating)	µg/L	--	--	2.2	--	--
Chlorodibromomethane[3] (after nitrification facilities begin operating)	µg/L	--	--	12	--	--
Copper, Total Recoverable	µg/L	~~7.3~~7.4	--	~~9.3~~10	--	--
Cyanide	µg/L	--	--	11	--	--
Dibenzo(ah)anthracene	µg/L	0.2	--	0.4	--	--
Dichlorobromomethane[3] (prior to nitrification facilities operating)	µg/L	--	--	3.4	--	--
Dichlorobromomethane[3] (after nitrification facilities begin operating)	µg/L	--	--	35	--	--
Methylene Chloride	µg/L	4.7	--	11	--	--
Pentachlorophenol	µg/L	--	--	18	--	--

PRELIMINARY DRAFT (12 May 2015)

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Tetrachloroethylene	µg/L	--	--	4.4	--	--
Non-Conventional Pollutants						
Settleable Solids	ml/L	0.1	--	0.2	--	--
Aluminum, Total Recoverable	µg/L	~~503~~470	~~--~~683	~~750~~--	--	--
Ammonia Nitrogen, Total (as N)[2] (Apr-Oct)	mg/L	1.5	--	2.0	--	--
	lbs/day[1]	2264	--	3019	--	--
Ammonia Nitrogen, Total (as N)[2] (Nov-Mar)	mg/L	2.4	--	3.3	--	--
	lbs/day[1]	3622	--	4981	--	--
Nitrate, Total (as N)[4]	mg/L	10	--	--	--	--
Manganese, Total Recoverable	µg/L	--	--	270	--	--
Methyl Tertiary Butyl Ether	µg/L	--	--	18	--	--

1 Based on a design average dry weather flow of 181 MGD.

2 This Order includes interim effluent limitations for BOD_5, TSS, and Total Ammonia Nitrogen (section IV.A.2.). Effective immediately, the interim effluent limitations shall apply in lieu of final effluent limitations for these constituents. The final effluent limitations for BOD_5 and TSS become effective 9 May 2023, and final effluent limitations for Total Ammonia Nitrogen become effective11 May 2021.

3 See task vi of the compliance schedule for ammonia (Section VI.C.7.b).

4 In its Order WQO 2012-0013, the State Water Board approved nitrate as an interim limitation.

b. Percent Removal. The average monthly percent removal of 5-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) shall not be less than 85 percent.

c. Chronic Whole Effluent Toxicity. There shall be no chronic whole effluent toxicity in the effluent discharge.

d. Acute Whole Effluent Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

i. 70%, minimum for any one bioassay; and

ii. 90%, median for any three consecutive bioassays.

e. Temperature. The maximum temperature of the discharge shall not exceed the natural receiving water temperature at RSWU-001 by more than 20°F from 1 May through 30 September and more than 25°F from 1 October through 30 April.

f. Total Residual Chlorine[1]. Effluent total residual chlorine shall not exceed:

i. 0.011 mg/L, as a 4-day average; and
ii. 0.019 mg/L, as a 1-hour average.

g. Total Coliform Organisms[1]. Effluent total coliform organisms shall not exceed:

i. May-October
(a) 2.2 most probable number (MPN) per 100 mL, as a 7-day median;
(b) 23 MPN/100 mL, more than once in any 30-day period; and
(c) 240 MPN/100 mL, at any time.

ii. November-April
(a) 2.2 MPN/100 mL, as a monthly median;
(b) 23 MPN/100 mL, as a weekly median; and
(c) 240 MPN/100 mL, at any time.

h. Average Dry Weather Flow. The av**e**rage dry weather discharge flow shall not exceed 181 mgd.

i. Aluminum, Total Recoverable. Effluent total recoverable aluminum concentrations shall not exceed 200 µg/L as a calendar annual average.

j. Electrical Conductivity. Effluent electrical conductivity shall not exceed 900 µmhos/cm as a calendar annual average.

k. Mercury. For a calendar year, the performance-based interim annual mass load of total mercury shall not exceed 2.3 lbs/year.

l. Chlorpyrifos and Diazinon. Effluent chlorpyrifos and diazinon concentrations shall not exceed the sum of one as defined below:

i. Average Monthly Effluent Limit

$$S_{AMEL} = \frac{C_{D\text{-}avg}}{0.08} + \frac{C_{C\text{-}avg}}{0.012} \leq 1.0$$

$C_{D\text{-}avg}$ = average monthly diazinon effluent concentration in µg/L
$C_{C\text{-}avg}$ = average monthly chlorpyrifos effluent concentration in µg/L

[1] This Order includes interim effluent limitations for total residual chlorine and total coliform organisms (section IV.A.2.). Effective immediately, the interim effluent limitations for these constituents shall apply in lieu of final effluent limitations. The final effluent limitations for total residual chlorine are effective 1 December 2020. Effluent limitations for total coliform organisms become effective when the Discharger complies with Special Provisions section VI.C.7 or 9 May 2023, whichever is sooner.

ii. Maximum Daily Effluent Limit

$$S_{MDEL} = \frac{C_{D\text{-}max}}{0.16} + \frac{C_{C\text{-}max}}{0.025} \leq 1.0$$

$C_{D\text{-}max}$ = maximum daily diazinon effluent concentration in µg/L
$C_{C\text{-}max}$ = maximum daily chlorpyrifos effluent concentration in µg/L

2. Interim Effluent Limitations – Discharge Point No. 001

The Discharger shall maintain compliance with the following interim effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program.

a. Effective immediately and ending on 10 May 2021 for ammonia and 8 May 2023 for BOD_5 and TSS, the Discharger shall maintain compliance with the interim effluent limitations specified in Table 7. These interim effluent limitations shall apply in lieu of the corresponding final effluent limitations specified for the same parameters during the time period indicated in this provision:

Table 7. Interim Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Conventional Pollutants						
Biochemical Oxygen Demand, 5-day @ 20°C	mg/L	30	45	60	--	--
	lbs/day[1]	45,286	67,929	90,572	--	--
Total Suspended Solids	mg/L	30	45	60	--	--
	lbs/day[1]	45,286	67,929	90,572	--	--
Non-Conventional Pollutant						
Ammonia Nitrogen, Total (as N)	mg/L	39	43	47	--	--
	lbs/day[1]	49,400	52,920	67,929	--	--

1. Based on a design flow of 181 MGD.

b. Total Residual Chlorine[1]. Effective immediately and ending on 30 November 2020, the effluent total residual chlorine shall not exceed:

i. 0.011 mg/L, as a monthly average; and
ii. 0.018 mg/L, as a daily average.

[1] The final effluent limitations for total residual chlorine become effective1 December 2020.

c. Total Coliform Organisms[1]. Effective immediately and ending on 8 May 2023, the total coliform organisms shall not exceed:

i. 23 most probable number (MPN) per 100 mL, as a weekly median; and
ii. 500 MPN/100 mL, in any two consecutive days as a daily maximum.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. Receiving Water Limitations

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Sacramento River and Sacramento-San Joaquin Delta:

1. **Bacteria.** The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mL, nor more than 10 percent of the total number of fecal coliform samples taken during any 30-day period to exceed 400 MPN/100 mL.

2. **Biostimulatory Substances.** Water to contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

3. **Chemical Constituents.** Chemical constituents to be present in concentrations that adversely affect beneficial uses**.**

4. **Color.** Discoloration that causes nuisance or adversely affects beneficial uses.

5. **Dissolved Oxygen**: The dissolved oxygen concentration to be reduced below 7.0 mg/L at any time.

6. **Floating Material.** Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.

7. **Oil and Grease.** Oils, greases, waxes, or other materials to be present in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.

[1] The final effluent limitations for total coliform organisms become effective when the Discharger complies with Special Provisions section VI.C.7. or 9 May 2023, whichever is sooner.