



North Coast Regional Water Quality Control Board

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NORTH COAST REGION

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ORDER No. R1-2023-0022
NPDES No. CA0022748
WDID NO. 1B83134OHUM

Waste Discharge Requirements and Water Recycling Requirements

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

Permittee **City of Rio Dell**
Name of Facility **City of Rio Dell Wastewater Treatment Facility**
Facility Address **475 Hilltop Drive**
Rio Dell, CA 95562
Humboldt County

Table 1. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
001	Disinfected Secondary Treated Wastewater	40° 29' 48.7"	-124° 5' 42.2"	Lower Eel River

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
003	Disinfected Secondary Treated Recycled Water	40° 30' 47.79"	-124° 7' 54.54"	Groundwater

This Order was adopted on: **August 3, 2023**
 This Order shall become effective on: **October 1, 2023**
This Order shall expire on: September 31, 2028

The Permittee 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: **September 31, 2027**. The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, North Coast Region have classified this discharge as follows: **Minor discharge**.

I, Valerie Quinto, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, North Coast Region on August 3, 2023.

 Valerie Quinto, Executive Officer

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TABLE OF CONTENTS

1. Facility Information 4

2. Findings..... 4

 2.1. Legal Authorities..... 4

 2.2. Background and Rationale for Requirements 4

 2.3. Provisions and Requirements Implementing State Law 4

 2.4. Notification of Interested Parties..... 4

 2.5. Compliance Schedule Recension..... 5

 2.6. Anticipated Water Quality Impacts in Disadvantaged or Tribal
 Communities..... 5

3. Discharge Prohibitions 6

4. Effluent Limitations and Discharge Specifications..... 8

 4.1. Effluent Limitations – Discharge Point 001 8

 4.2. Land Discharge Specifications – Not Applicable 10

 4.3. Recycling Specifications – Discharge Point 003..... 11

 4.4. Other Requirements 2

5. Receiving Water Limitations..... 2

 5.1. Surface Water Limitations 2

 5.2. Groundwater Limitations..... 5

6. Provisions..... 6

 6.1. Standard Provisions 6

 6.2. Monitoring and Reporting Program (MRP) Requirements 7

 6.3. Special Provisions 7

7. Compliance Determination 17

TABLE OF TABLES

Table 1. Discharge Location..... 1

Table 2. Effluent Limitations ¹ – Discharge Point 001..... 8

Table 3. Interim Effluent Limitations – Discharge Point 001 10

Table 4. Recycled Water Discharge Limitations ¹ – Discharge Point 003 11

Table 5. Schedule for Compliance with Final Effluent Limitations for Disinfection
 Byproducts 16

TABLE OF ATTACHMENTS

No table of contents entries found.

1. FACILITY INFORMATION

Information describing the City of Rio Dell (Permittee) Wastewater Treatment Facility (Facility) is summarized on the cover page and in sections 1 and 2 of the Fact Sheet (Attachment F). Section 1 of the Fact Sheet also includes information regarding the Facility's permit application.

2. FINDINGS

The California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds:

2.1. Legal Authorities

This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. EPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Permittee to discharge into waters of the United States at the discharge location described in Table 1 subject to the WDRs in this Order. This Order also serves as water recycling requirements pursuant to article 4, chapter 7, division 7 of the Water Code (commencing with section 13500).

2.2. Background and Rationale for Requirements

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

2.3. Provisions and Requirements Implementing State Law

The provisions/requirements in subsections 3.1, 3.2, 3.5, 3.6, 3.7, 4.2, 4.3, 5.2, and 6.3.5.1 and sections 6, 7, 10.5 of the MRP 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.

2.4. Notification of Interested Parties

The Regional Water Board has notified the Permittee and interested agencies and persons of its intent to prescribe WDRs for discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.

2.5. **Compliance Schedule Recension**

The requirements and interim effluent limitations and compliance schedule of TSO Order No. R1-2023-0030 are implemented in this order in section 4.1.2 and 6.3.5.2, respectively. Therefore, R1-2023-0030 is no longer necessary to implement interim effluent limitations for disinfection byproducts.

2.6. **Anticipated Water Quality Impacts in Disadvantaged or Tribal Communities**

The Permittee, City of Rio Dell, operates a wastewater treatment facility within a disadvantaged community located along the Lower Eel River in Humboldt County. The discharge is classified as "minor" under federal regulations, and during the term of the prior permit, Order No. R1-2017-0007, from October 1 through May 14, the Facility discharged treated wastewater to the Lower Eel River. In addition, among other updates, this renewed permit contains new requirements to implement bacteria and dissolved oxygen limitations and implement provisions for chronic toxicity. This Order includes a time schedule in accordance with section 13263, subdivision (c) of the Water Code for achieving the applicable water quality objectives for dichlorobromomethane, chlorodibromomethane, total trihalomethanes, and Haloacetic Acids. Expanded monitoring and reporting requirements are included in the renewed Order to ensure waste discharges do not exceed water quality objectives. The Permittee is also currently seeking funding for significant upgrades and improvements to its wastewater treatment facility and collection system. The Regional Water Board publicly noticed the permit and provided opportunities for public comment. Public notice was provided to interested persons and public agencies in the region with jurisdiction over natural resources in the affected area, including the Humboldt County Health Department. The discharge regulated by this Order is not expected to result in a disproportionate impact to tribal or disadvantaged communities. The Regional Water Board has satisfied the outreach and findings requirements set forth in Water Code section 189.7 and Water Code section 13149.2, subd. (d).

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

THEREFORE, IT IS HEREBY ORDERED, that Order No. R1-2017-0007 and Time Schedule Order No. R1-2023-0030 are rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous Order.

3. DISCHARGE PROHIBITIONS

- 3.1 The discharge of any waste not disclosed by the Permittee or not within the reasonable contemplation of the Regional Water Board is prohibited.
- 3.2 Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.
- 3.3 The discharge of sludge or digester supernatant is prohibited, except as authorized under section 6.3.4.3 of this Order (Sludge Disposal and Handling Requirements).
- 3.4 The discharge or recycling use of untreated or partially treated waste (receiving a lower level of treatment than described in section 2.1 of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems is prohibited, except as provided for in Attachment D, Standard Provisions 1.7 (Bypass) and 1.8 (Upset).
- 3.5 The discharge of waste to land that is not owned by the Permittee, governed by City ordinance, or under agreement to use by the Permittee, or for which the Permittee has explicitly permitted such use, is prohibited, except for use for fire suppression as provided in title 22, sections 60307(a) and 60307(b) of the California Code of Regulations (CCR).
- 3.6 The discharge of recycled wastewater to any use area not addressed in a DDW-accepted title 22 Recycled Water Engineering Report is prohibited.
- 3.7 The discharge of waste at any point not described in Finding 2.2 of the Fact Sheet or authorized by a permit issued by the State Water Resources Control Board (State Water Board) or another Regional Water Board is prohibited.
- 3.8 The average dry weather flow of waste through the Facility shall not exceed 0.40 mgd, measured daily and averaged over a calendar month. The average monthly wet weather flow of waste through the Facility shall not exceed 1.25 mgd. The peak daily wet weather flow of waste through the Facility shall not exceed 2.51 mgd, measured daily. Compliance with this prohibition shall be determined as defined in sections 7.10 and 7.11 of this Order.
- 3.9 The discharge of waste to the Lower Eel River and its tributaries is prohibited during the period from May 15 through September 30 of each year.
- 3.10 During the period from October 1 through May 14, discharges of treated wastewater to the Lower Eel River shall not exceed one percent of the flow of the Lower Eel River, as measured at United States Geological Survey (USGS) Gage No. 11477000 in the Lower Eel River near Scotia. For the purposes of this Order, compliance with this discharge prohibition shall be determined as follows:
 - 3.10.1 The discharge of secondary treated wastewater shall be adjusted at least once daily to avoid exceeding, to the extent practicable, one percent of the most recent daily flow measurement of the Lower Eel River. Daily

flow shall be based on flow meter comparisons reasonably read between the hours of 12:01 am and 12:00 midnight.

- 3.10.2 In no case shall the total volume of secondary treated wastewater discharged in a calendar month exceed one percent of the total volume of the Lower Eel River's flow that occurs in the same calendar month, as measured per Section 3.10. At the beginning of the discharge season, the monthly flow volume comparison shall be based on the date when the discharge commenced to the end of the calendar month. At the end of the discharge season, the monthly flow volume comparison shall be based on the first day of the calendar month to the date when the discharge ceases for the season.
- 3.11 The discharge of any radiological, chemical, or biological warfare agent into waters of the state under Water Code section 13375.
- 3.12 The acceptance of septage to a location other than an approved septage receiving station and in accordance with a septage management program approved by the Regional Water Board Executive Officer is prohibited.

4. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

4.1. Effluent Limitations – Discharge Point 001

4.1.1. The Permittee shall maintain compliance with the below effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 2. Effluent Limitations ¹ – Discharge Point 001

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	30	45	--	--	--
Total Suspended Solids	mg/L	30	45	--	--	--
pH	standard units	--	--	--	6.5	8.5
Settleable Solids	ml/L	0.1	--	0.2	--	--
Chlorine Total Residual ²	mg/L	0.01	--	0.02	--	--
Chlorodibromomethane	µg/L	0.41	--	0.89	--	--
Dichlorobromomethane	µg/L	0.56	--	1.1	--	--
Total Trihalomethanes ³	µg/L	80	--	--	--	--
Haloacetic Acids ⁴	µg/L	60	--	--	--	--
Nitrogen, Total (as N)	mg/L	10	--	--	--	--
Ammonia Impact Ratio ⁵	Ratio	1.0	--	1.0	--	--
4,4-DDT	ug/L	0.00059	--	0.00118	--	--

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Antimony, Total Recoverable	ug/L	6	--	12	--	--

Table Notes

1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.
2. See section 7.14 of this Order regarding compliance with chlorine residual effluent limitations.
3. The sum of the concentrations of bromoform, chlorodibromomethane, chloroform, and dichlorobromomethane.
4. The sum of the concentrations of Monochloroacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, Monobromoacetic Acid, and Dibromoacetic Acid.
5. The Ammonia Impact Ratio (AIR) is calculated as the ratio of the ammonia concentration in the effluent and the applicable ammonia standard (AMEL and MDEL). Attachment I is a PDF example of the calculator that will be sent to the Permittee to determine compliance with the AMEL/MDEL AIR. For each of the applicable ammonia standards, Attachment G includes two tables that provide the variable AMEL and MDEL ammonia standards used in calculating the AIR. The AIR is the ammonia effluent limit and must be reported in the self-monitoring reports in addition to ammonia concentrations, and pH and temperature values in the effluent and receiving water. Monitoring for ammonia, pH and temperature must be conducted concurrently in order for the AIR to be calculated properly.

- 4.1.1.1. **Percent Removal.** The average monthly percent removal of BOD₅ and total suspended solids shall not be less than 85 percent. Percent removal shall be determined from the monthly average value of influent wastewater concentration in comparison to the monthly average value of effluent concentration for the same constituent over the same time period as measured at Monitoring Locations INF-001 and EFF-001, respectively.
- 4.1.1.2. **Disinfection.** Disinfected effluent discharged from the Facility through Discharge Point 001 to Lower Eel River shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location EFF-001:

- 4.1.1.2.1. The median concentration shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters (mL) in a calendar month; and
- 4.1.1.2.2. No sample shall exceed an MPN of 240 per 100 mL.
- 4.1.1.3. **Chronic Toxicity.** To determine compliance with the water quality objective for toxicity in the Basin Plan, the discharge, as measured at Monitoring Location EFF-001, shall meet the following effluent limitations:
 - 4.1.1.3.1. **Maximum Daily Effluent Limitation.** No chronic 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 greater than or equal to 50 percent.
 - 4.1.1.3.2. **Median Monthly Effluent Target.** No more than one chronic toxicity test initiated in a calendar month shall result in a “fail” at the IWC for any endpoint, effect only through December 31, 2023.
 - 4.1.1.3.3. **Median Monthly Effluent Limitation.** No more than one chronic aquatic toxicity test initiated in a calendar month shall result in a “fail” at the IWC for any endpoint, starting January 1, 2024.

4.1.2. **Interim Effluent Limitations for Disinfection Byproducts**

For the duration of Compliance Schedule outlined in section 6.3.5.2 , the Permittee shall maintain compliance with the following interim effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, as described in the attached MRP (Attachment E). Upon completion of the compliance schedule, the Permittee shall maintain compliance with final effluent limitations in section 4.1.1 of this order.

Table 3. Interim Effluent Limitations – Discharge Point 001

Parameter	Unit	Average Monthly
Chlorodibromomethane	µg/L	2.34
Dichlorobromomethane	µg/L	20.0
Total Trihalomethanes	µg/L	113
Haloacetic Acids	µg/L	196

4.2. **Land Discharge Specifications – Not Applicable**

This Order does not authorize discharges to land.

4.3. **Recycling Specifications – Discharge Point 003**

4.3.1. **Water Recycling Specifications**

The Permittee shall maintain compliance with the following limitations at Discharge Point 003, with compliance measured at Monitoring Location EFF-003, as described in the attached MRP.

Table 4. Recycled Water Discharge Limitations ¹ – Discharge Point 003

Parameter	Units	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C (BOD ₅)	mg/L	30	45	---	---	---
Total Suspended Solids (TSS)	mg/L	30	45	---	---	---
pH	standard units	---	---	---	6.5	8.5
Nitrogen, Total (as N) ²	mg/L	10	---	---	---	---

Table Notes

1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.
2. The sum of the concentrations of nitrate nitrogen, nitrite nitrogen, total organic nitrogen and ammonia.

4.3.1.1. **Disinfection.** Disinfected effluent discharged from the Facility through Discharge Point 003 to the irrigation site shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location EFF-003:

4.3.1.1.1. The median concentration shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters (mL) in a calendar month; and

4.3.1.1.2. No sample shall exceed an MPN of 240 per 100 mL.

4.3.2. Water Recycling Requirements

- 4.3.2.1. The Permittee shall install, operate, and maintain the irrigation system in a manner that ensures compliance with all requirements of this Order.
- 4.3.2.2. The Permittee shall conduct periodic inspections of the irrigation system, facilities, and operations to monitor and ensure compliance with the conditions of this Order.
- 4.3.2.3. The use of disinfected recycled water for irrigation shall not cause or contribute to an exceedance of any applicable water quality standard. The Permittee shall be responsible for ensuring that all discharges to the irrigation system meet all terms and conditions of this Order, including the Recycled Water Discharge Limitations in section 4.3.1 of this Order.
- 4.3.2.4. The Permittee shall discontinue delivery of recycled water for irrigation during any period that there is reason to believe that the requirements for use, as specified in this Order are not being met. The delivery of recycled water for irrigation shall not resume until all conditions have been corrected.
- 4.3.2.5. Disinfected recycled water shall not be irrigated within 100 feet of any domestic water supply well.
- 4.3.2.6. The use of disinfected recycled water for irrigation shall not cause degradation of any water supply.
- 4.3.2.7. Irrigation areas shall be managed to prevent ponding and conditions conducive to the proliferation of mosquitoes and other disease vectors, and to avoid creation of a public nuisance or health hazard. The following practices shall be implemented, at a minimum:
 - 4.3.2.7.1. Irrigation water shall infiltrate completely within a 48-hour period; and
 - 4.3.2.7.2. Low-pressure and unpressurized pipelines and ditches that may be accessible to mosquitoes shall not be used to store effluent.
- 4.3.2.8. Recycled water used for irrigation shall not be allowed to escape the irrigation area in the form of surface runoff. Where appropriate, practices and strategies to prevent the occurrence of runoff shall include, but not be limited to the parameters outlined below:
 - 4.3.2.8.1. A minimum 50-foot setback to all surface waters or implementation of Best Management Practices (BMPs) designed to prevent the potential for runoff discharging to surface water;

- 4.3.2.8.2. Proper design and operation of the irrigation system, including the use of the drainage collection system to pump runoff back onto the irrigation fields;
- 4.3.2.8.3. Refraining from application during precipitation events; and
- 4.3.2.8.4. Maintenance of irrigation infrastructure (e.g., pipelines, pumps, etc.) to prevent and minimize breakage and leaks.
- 4.3.2.9. All irrigation equipment, pumps, piping, valves, quick couplers and outlets shall be a type or secured in a manner that only permits operation by authorized personnel and shall be appropriately marked to differentiate them from potable facilities.
- 4.3.2.10. The Permittee shall comply with applicable state and local requirements regarding the production of recycled water, including requirements of Water Code sections 13500-13577 (Water Reclamation) and State Water Board, Division of Drinking Water (DDW) regulations at title 22, sections 60301 – 60357 of the CCR (Water Recycling Criteria).
- 4.3.2.11. The Permittee shall implement its DDW title 22 Recycled Water Engineering Report, accepted April 2022, (and any subsequent amendments thereto). The Permittee shall submit revisions and updates to the title 22 Recycled Water Engineering Report to reflect any changes in operations and recycled water management or new use types.

4.4. Other Requirements

- 4.4.1. **Total Residual Chlorine, Monitoring Location INT-001.** As measured at the end of the chlorine contact chamber at Monitoring Location INT-001, the total residual chlorine concentration shall be maintained at a level that ensures the discharge meets the total coliform effluent limitation at the end of the disinfection process for discharges to Discharge Points 001 and 003.

5. RECEIVING WATER LIMITATIONS

5.1. 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. Receiving water conditions not in conformance with the limitations are not necessarily a violation of this Order. Compliance with receiving water limitations shall be measured at monitoring locations described in the MRP (Attachment E). The Regional Water Board may require an investigation and/or consider other available information to determine cause and culpability prior to asserting that a violation has occurred.

The discharge shall not cause the following in the receiving water:

- 5.1.1. The discharge shall not cause the dissolved oxygen (DO) concentration of the receiving water to be depressed below 9.0 mg/L daily and 11.0 mg/L as a 7-day rolling average. In those waterbodies for which the aquatic life-based DO requirements are unachievable due to natural conditions, site-specific background DO requirements can be applied as water quality objectives by calculating the daily minimum DO necessary to maintain 85% DO saturation during the dry season and 90% DO saturation during the wet season under site salinity, site atmospheric pressure, and natural receiving water temperature. In no event may controllable factors reduce the daily minimum DO below 6.0 mg/L.

Natural conditions are conditions or circumstances affecting the physical, chemical, or biological integrity of water that are not influenced by past or present anthropogenic activities. Site specific DO requirements can be applied upon approval from the Executive Officer. The method(s) used to estimate natural temperatures for a given waterbody or stream length must be approved by the Executive Officer and may include, as appropriate, comparison with reference streams, simple calculation, or computer models.

- 5.1.2. The discharge shall not cause the specific conductance (micromhos) concentration of the receiving waters to increase above 225 micromhos more than 50 percent of the time, or above 375 micromhos more than 10 percent of the time.
- 5.1.3. The discharge shall not cause the total dissolved solids concentration of the receiving waters to increase above 140 mg/L more than 50 percent of the time, or above 275 mg/L more than 10 percent of the time.
- 5.1.4. The discharge shall not cause the pH of receiving waters to be depressed below 6.5 nor raised above 8.5. Within this range, the discharge shall not cause the pH of the receiving waters to be changed at any time more than 0.5 units from that which occurs naturally.
- 5.1.5. The discharge shall not cause the turbidity of receiving waters to be increased more than 20 percent above naturally occurring background levels.
- 5.1.6. The discharge shall not cause receiving waters to contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.
- 5.1.7. The discharge shall not cause receiving waters to contain floating materials, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.
- 5.1.8. The discharge shall not cause receiving waters to contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

- 5.1.9. The discharge shall not cause coloration of receiving waters that causes nuisance or adversely affects beneficial uses.
- 5.1.10. The discharge shall not cause bottom deposits in receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.
- 5.1.11. The discharge shall not cause receiving waters to contain concentrations of biostimulatory substances that promote objectionable aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses.
- 5.1.12. The discharge shall not cause receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in humans, plants, animals, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods, as specified by the Regional Water Board.
- 5.1.13. The discharge shall not cause a measurable temperature change in the receiving water at any time.
- 5.1.14. The discharge shall not cause an individual pesticide or combination of pesticides to be present in concentrations that adversely affect beneficial uses. The discharge shall not cause bioaccumulation of pesticide concentrations in bottom sediments or aquatic life.
- 5.1.15. The discharge shall not cause receiving waters to contain concentrations of pesticides in excess of Maximum Contaminant Levels (MCLs) established for these pollutants in title 22, division 4, chapter 15, articles 4 and 5.5 of the CCR.
- 5.1.16. The discharge shall not cause receiving waters to contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise affect beneficial uses.
- 5.1.17. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board, as required by the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.
- 5.1.18. The discharge shall not cause concentrations of chemical constituents to occur in excess of MCLs established for these pollutants in title 22, division 4, chapter 15, articles 4 and 5.5 of the CCR.

- 5.1.19. The discharge shall not cause receiving waters to contain radionuclides in concentrations which are deleterious to human, plant, animal or aquatic life, nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal or indigenous aquatic life.
- 5.1.20. The bacteria water quality objective for all waters where the salinity is equal to or less than 1 part per thousand (ppth) 95 percent or more of the time during the calendar year is: a six week rolling geometric mean of *Escherichia coli* (*E. coli*) not to exceed 100 colony forming units (cfu) per 100 milliliter (mL), calculated weekly, and a statistical threshold value (STV) of 320 cfu/100 mL not to be exceeded by more than 10 percent of the samples collected in a calendar month, calculated in a static manner.

5.2. Groundwater Limitations

- 5.2.1. The collection, treatment, storage, and disposal of wastewater or use of recycled water shall not cause degradation of groundwater quality unless a technical evaluation is performed that demonstrates that any degradation that could reasonably be expected to occur, after implementation of all reasonable BMPs, will not violate groundwater quality objectives or cause impacts to beneficial uses of groundwater.
- 5.2.2. The collection, treatment, storage, and disposal of wastewater or use of recycled water shall not cause or contribute to levels of chemical constituents in groundwater that exceed the maximum and secondary maximum contaminant levels (MCLs and SMCLs) established for these pollutants in the title 22, division 4, chapter 15, article 4, section 64431; article 5.5, section 64444; and article 16, section 64449 of the CCR.
- 5.2.3. The collection, treatment, storage, and disposal of wastewater or use of recycled water shall not cause or contribute to levels of radionuclides in groundwater in concentrations that cause nuisance or adversely affect beneficial uses, nor in excess of the MCLs and SMCLs established for these pollutants in title 22, division 4, chapter 15, article 5, sections 64442 and 64443 of the CCR.
- 5.2.4. The collection, treatment, storage, and disposal of wastewater or use of recycled water shall not cause groundwater to contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- 5.2.5. The collection, treatment, storage, and disposal of wastewater or use of recycled water shall not cause the median of the most probable number of coliform organisms over any 7-day period to exceed 1.1 MPN/100 mL or 1 colony/100 mL in groundwaters used for domestic or municipal supply (MUN).
- 5.2.6. The collection, treatment, and disposal of wastewater or use of recycled water shall not cause groundwater to contain toxic substances in concentrations that

are toxic to, or that produce detrimental physiological responses in humans, or that adversely affects beneficial uses. This limitation applies regardless of whether the toxicity is caused by a single substance or the synergistic effect of multiple substances.

6. PROVISIONS

6.1. Standard Provisions

6.1.1. **Federal Standard Provisions.** The Permittee shall comply with all Standard Provisions included in Attachment D of this Order.

6.1.2. **Regional Water Board Standard Provisions.** The Permittee shall comply with the following Regional Water Board standard provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:

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

6.1.2.2. In the event the Permittee does not comply or will be unable to comply for any reason, with any prohibition, final effluent limitation, recycled water specification, other specification, receiving water limitation, or provision of this Order, that may result in significant threat to human health or the environment, such as inundation of treatment infrastructure, breach of pond containment, sanitary sewer overflow, recycled water main break or equivalent release, irrigation runoff, etc., that results in a discharge to a drainage channel or a surface water, the Permittee shall:

6.1.2.2.1. Notify the Regional Water Board within 24 hours of having knowledge of such noncompliance. Spill notification and reporting shall be conducted in accordance with section 5.5 of Attachment D and section 10.5 of the MRP (Attachment E).

6.1.2.2.2. Investigate the cause(s) of final effluent limitation and discharge specification exceedances and failures to comply with any prohibition, specification, or provision of this Order that may result in significant threat to human health or the environment.

6.1.2.2.3. Identify and implement corrective actions to prevent future exceedances or failures to comply with Order requirements.

- 6.1.2.2.4. Report the results of such investigations and corrective actions implemented in the quarterly SMR as required by MRP section 10.2.6.2.5 and 10.2.6.2.6.

6.2. Monitoring and Reporting Program (MRP) Requirements

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

6.3. Special Provisions

6.3.1. Reopener Provisions

- 6.3.1.1. **Standard Revisions.** If applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments thereto, the Regional Water Board may reopen this Order and make modifications in accordance with such revised standards.
- 6.3.1.2. **Reasonable Potential.** This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes or has the reasonable potential to cause or contribute to, an excursion above a water quality criterion or objective applicable to the receiving water.
- 6.3.1.3. **Species Sensitivity Screening.** Upon completion of the species sensitivity screening, this Order may be reopened to specify the most sensitive species. Furthermore, the MDEL and MMEL, as identified in sections 4.1.1.3.1 and 4.1.1.3.2, respectively, may be modified to reflect the identified most sensitive species. Reopening of the permit is not required if the species sensitivity screening indicates that the most sensitive species is *Ceriodaphnia dubia*.
- 6.3.1.4. **Whole Effluent Toxicity.** As a result of a Toxicity Reduction Evaluation (TRE), this Order may be reopened to include a narrative or numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.
- 6.3.1.5. **Acute Aquatic Toxicity.** This Order may be reopened to allow the reevaluation of reasonable potential for the Permittee to cause or contribute to an exceedance of the acute aquatic toxicity water quality objective, and add the resulting MDEL and MMEL, if warranted, after the evaluation of new data and information.
- 6.3.1.6. **303(d)-Listed Pollutants.** If an applicable total maximum daily load (TMDL) (see Fact Sheet, section 3.4) program is adopted, this Order may be reopened and effluent limitations for the pollutant(s) that are the subject of the TMDL may be modified or imposed to conform this Order to the TMDL requirements.

- 6.3.1.7. **Water Effects Ratios (WERs) and Metal Translators.** A default WER of 1.0 has been used in this Order for calculating CTR criteria for applicable priority pollutant inorganic constituents. If the Permittee performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators and submits a report that demonstrates that WER or translator studies were performed in accordance with U.S. EPA or other approved guidance, this Order may be reopened to modify the effluent limitations for the applicable constituents.
- 6.3.1.8. **Nutrients.** This Order contains effluent limitations for ammonia and effluent and receiving water monitoring requirements for nutrients (ammonia, nitrate, and phosphorus). If new water quality objectives for nutrients are established, if monitoring data indicate the need for new or revised effluent limitations for any of these parameters, or if new or revised methods for compliance with effluent limitations for any of these parameters are developed, this Order may be reopened and modified to include new or modified effluent limitations or other requirements, as necessary.
- 6.3.1.9. **Salt and Nutrient Management Plans (SNMPs).** The Recycled Water Policy adopted by the State Water Board on February 3, 2009, and effective May 14, 2009, recognizes the fact that some groundwater basins in the state contain salts and nutrients that exceed or threaten to exceed water quality objectives in the applicable Basin Plans, and that not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients. The Recycled Water Policy finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional SNMPs rather than through imposing requirements solely on individual recycled water projects. This Order may be reopened to incorporate provisions consistent with any SNMP(s) adopted by the Regional Water Board.
- 6.3.1.10. **Title 22 Recycled Water Engineering Report.** This Order implements title 22 requirements to protect public health. If the Permittee's title 22 Recycled Water Engineering Report requires modifications to this Order to adequately implement title 22, this Order may be reopened and modified as necessary.
- 6.3.1.11. **Mixing Zone Study.** This Order may be reopened to consider modifying effluent limitations and receiving water monitoring locations if the Permittee demonstrates to the satisfaction of the Regional Water Board Executive Officer that it has evaluated all reasonable alternatives for compliance with human health-based effluent limitations and conducts a mixing zone study that provides a basis for determining that permit conditions should be modified.

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

6.3.2.1. **Pollutant Minimization Program (PMP)**

The Permittee shall, as required by the Regional Water Board Executive Officer (Hereafter Executive Officer), develop and conduct a PMP, as further described below, when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

- 6.3.2.1.1. A sample result is reported as DNQ and the effluent limitation is less than the RL; or
 - 6.3.2.1.2. A sample result is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section 10.2.4.
- 6.3.2.2. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:
- 6.3.2.2.1. 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;
 - 6.3.2.2.2. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
 - 6.3.2.2.3. 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;
 - 6.3.2.2.4. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
 - 6.3.2.2.5. An annual status report that shall be submitted as part of the Annual Facility Report due March 1st to the Regional Water Board and shall include:
 - 6.3.2.2.5.1.1. All PMP monitoring results for the previous year;
 - 6.3.2.2.5.1.2. A list of potential sources of the reportable priority pollutant(s);
 - 6.3.2.2.5.1.3. A summary of all actions undertaken pursuant to the control strategy; and

6.3.2.2.5.1.4. A description of actions to be taken in the following year.

6.3.3. Construction, Operation and Maintenance Specifications

- 6.3.3.1. **Proper Operation and Maintenance.** This Order (Attachment D, Standard Provision 1.4) requires that the Permittee at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Permittee to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory quality control and appropriate quality assurance procedures.
- 6.3.3.2. **Operation and Maintenance Manual.** The Permittee shall maintain an updated Operation and Maintenance (O&M) Manual for the operational components of the Facility. The Permittee shall update the O&M Manual, as necessary, to conform to changes in operation and maintenance of the Facility. The Permittee shall operate and maintain the Facility in accordance with the most recently updated O&M Manual. The O&M Manual shall be readily available to operating personnel onsite and for review by state or federal inspectors. The O&M Manual shall include the following:
- 6.3.3.2.1. Description of the Facility's organizational structure showing the number of employees, duties and qualifications, and facility attendance schedules (daily, weekends and holidays, part-time, etc.). The description should include documentation that the personnel are knowledgeable and qualified to operate the Facility so as to achieve the required level of treatment at all times.
- 6.3.3.2.2. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
- 6.3.3.2.3. Description of laboratory and quality assurance procedures.
- 6.3.3.2.4. Process and equipment inspection and maintenance schedules.
- 6.3.3.2.5. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Permittee will be able to comply with requirements of this Order.
- 6.3.3.2.6. 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.
- 6.3.3.3. **Operating Records.** The Permittee shall maintain operating records at the Facility or at the Permittee's central records depository. The records shall

include: all analyses specified in the reclamation criteria; any documentation of operational problems, facility and equipment breakdowns, and diversions to emergency storage or disposal; and documentation of all corrective or preventive actions taken.

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

6.3.4.1. **Wastewater Collection Systems**

The Permittee has coverage under, and is separately subject to the requirements of, State Water Board Order No. 2022-0103-DWQ, Statewide General WDRs for Sanitary Sewer Systems, and any subsequent revisions. As such, the Permittee provides notification and reporting of SSOs in accordance with the requirements of Order No. 2022-0103-DWQ and any revisions thereto for operation of its wastewater collection system.

6.3.4.2. **Source Control and Pretreatment Provisions**

6.3.4.2.1. The Permittee shall perform source control functions and provide a summary of source control activities conducted in the Annual Report (due **March 1st** to the Regional Water Board). Source control functions and requirements shall include the following:

6.3.4.2.1.1. Implement the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials to the collection system and inspect facilities connected to the system.

6.3.4.2.1.2. If waste haulers are allowed to discharge to the Facility, establish a waste hauler permit system, to be reviewed and approved by the Executive Officer, to regulate waste haulers discharging to the collection system or Facility.

6.3.4.2.1.3. Perform public outreach to educate industrial, commercial, and residential users about the importance of preventing discharges of industrial and toxic wastes to the wastewater treatment facility, at least once per year.

6.3.4.2.1.4. Perform ongoing inspections and monitoring, as necessary, to ensure adequate source control.

6.3.4.2.1.5. **General Prohibitions.** Pollutants introduced into wastewater treatment facilities (WWTFs) by a non-domestic source shall not pass through [40 CFR 403.3(n)] the WWTF or interfere [40 CFR 403.3(i)] with the operation or performance of the works. These general prohibitions and the specific prohibitions in section 6.3.5.2.1.6 of this provision apply to all non-domestic sources introducing pollutants into a WWTF whether or not the source is subject to other National Pretreatment Standards or any national, state, or local pretreatment requirements.

6.3.4.2.1.6. **Specific Prohibitions.** In addition, the following pollutants shall not be introduced into a WWTF:

- 6.3.4.2.1.6.1. Pollutants that create a fire or explosion hazard in the WWTF;
- 6.3.4.2.1.6.2. Pollutants that will cause corrosive structural damage to the WWTF, but in no case discharges with pH lower than 5.0, unless the WWTF is specifically designed to accommodate such discharges;
- 6.3.4.2.1.6.3. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the WWTF resulting in interference;
- 6.3.4.2.1.6.4. Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the WWTF;
- 6.3.4.2.1.6.5. Heat in amounts that will inhibit biological activity in the WWTF resulting in interference, but in no case heat in such quantities that the temperature at the WWTF exceeds 40°C (104°F) unless the Regional Water Board, upon request of the Permittee, approves alternate temperature limits;
- 6.3.4.2.1.6.6. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interferences or pass through; and
- 6.3.4.2.1.6.7. Pollutants that result in the presence of toxic gases, vapors, or fumes within the WWTF in a quantity that may cause acute worker health and safety problems

6.3.4.2.2. **Industrial Waste Additions**

In the event that the Permittee identifies industrial wastes subject to regulation under the NPDES Pretreatment Program being discharged to the wastewater treatment facility, or the Regional Water Board or its Executive Officer determines that circumstances warrant pretreatment requirements in order to prevent interference [40 C.F.R. §403.3(j)] with the wastewater treatment Facility or Pass Through [40 C.F.R. §403.3(n)], then:

- 6.3.4.2.2.1. The Permittee shall notify the Regional Water Board within 30 days after there are discharges that trigger the pretreatment requirements;
- 6.3.4.2.2.2. The Permittee shall submit a revised ROWD and the pretreatment program for the Regional Water Board's review and approval as soon as possible, but not more than one year after the Permittee's notification to the Regional Water Board of the need for pretreatment requirements being triggered;

- 6.3.4.2.2.3. The Permittee shall enforce the federal categorical pretreatment standards on all categorical industrial users (CIUs);
- 6.3.4.2.2.4. The Permittee shall notify each CIU of its discharge effluent limits. The limits must be as stringent as the pretreatment standards contained in the applicable federal category (40 C.F.R. Part 400-699). The Permittee may develop more stringent, technology-based local limits if it can show cause; and
- 6.3.4.2.2.5. The Permittee shall notify the Regional Water Board if any CIU violates its discharge effluent limits.
- 6.3.4.2.3. The Regional Water Board retains the right to take legal action against an industrial user and/or the Permittee where a user fails to meet the approved applicable federal, state, or local pretreatment standards.
- 6.3.4.2.4. The Regional Water Board may amend this Order, at any time, to require the Permittee to develop and implement an industrial pretreatment program pursuant to the requirements of 40 C.F.R. Part 403 if the Regional Water Board finds that the Facility receives pollutants from an IU that is subject to pretreatment standards, or if other circumstances so warrant.
- 6.3.4.3. **Sludge Disposal and Handling Requirements**
 - 6.3.4.3.1. Sludge, as used in this Order, means the solid, semisolid, and liquid residues removed during primary, secondary, or secondary wastewater treatment processes. Solid waste refers to grit and screenings generated during preliminary treatment. Biosolids refers to sludge that has been treated, tested, and demonstrated to be capable of being beneficially and legally used pursuant to federal and state regulations as a soil amendment for agriculture, silviculture, horticulture, and land reclamation activities.
 - 6.3.4.3.2. All collected sludges and other solid waste removed from liquid wastes shall be removed from screens, sumps, ponds, and tanks as needed to ensure optimal facility operation and disposed of in accordance with applicable federal and state regulations.
 - 6.3.4.3.3. The use and disposal of biosolids shall comply with all of the land application and disposal requirements in 40 C.F.R. part 503, which are enforceable by the U.S. EPA, not the Regional Water Board. If during the life of this Order, the state accepts primacy for implementation of 40 C.F.R. part 503, the Regional Water Board may also initiate enforcement where appropriate.
 - 6.3.4.3.4. The Permittee shall ensure that any biosolids it has land applied is incorporated within six hours in order to meet Vector Attraction Reduction requirements in 40 C.F.R. 503.33.

- 6.3.4.3.5. Sludge or biosolids that are disposed of in a municipal solid waste landfill or used as daily landfill cover shall meet the applicable requirements of 40 C.F.R. part 258. In the annual self-monitoring report, the Permittee shall report the amount of sludge placed in a landfill and the landfill(s) which received the sludge or biosolids.
- 6.3.4.3.6. The Permittee shall take all reasonable steps to prevent and minimize any sludge use or disposal in violation of this Order that may adversely affect human health or the environment.
- 6.3.4.3.7. Solids and sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, and shall not result in groundwater contamination.
- 6.3.4.3.8. Solids and sludge treatment and storage sites shall have facilities adequate to divert surface water runoff from adjacent areas, protect the boundaries of the site from erosion, and prevent drainage from the treatment and storage site. Adequate protection is defined as protection from a design storm with a 100-year recurrence interval and 24-hour duration.
- 6.3.4.3.9. The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the state.
- 6.3.4.3.10. For the land application of biosolids as soil amendment, the Permittee shall submit a report of waste discharge or the Permittee may dispose of biosolids at another appropriately permitted facility.
- 6.3.4.3.11. New sludge treatment and storage facilities must comply with the requirements of the Water Code and title 27 of the CCR for the protection of water quality.
- 6.3.4.3.12. The Permittee currently gives away all dewatered Class A biosolids to residents as a soil amendment. The Permittee shall notify the Regional Water Board and U.S. EPA at NorthCoast@waterboards.ca.gov and R9NPDES@epa.gov, respectively, prior to changing biosolids use or disposal practices.

6.3.4.4. Biosolids Management

For any discharge of biosolids from the Facility, the Permittee shall comply with the following requirements:

- 6.3.4.4.1. For the land application of biosolids as soil amendment within the North Coast Region, the Permittee shall obtain or maintain coverage under the State Water Board Water Quality Order No. 2004-0012-DWQ General Waste Discharge Requirements for the Discharge of Biosolids to Land or

Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities, or

- 6.3.4.4.2. Alternatively, the Permittee may dispose of biosolids at another appropriately permitted facility.
- 6.3.4.4.3. New sludge treatment and storage facilities must comply with the requirements of the Water Code and title 27 of the CCR for the protection of water quality.

6.3.4.5. **Operator Certification**

Supervisors and operators of municipal wastewater treatment facilities shall possess a certificate of appropriate grade in accordance with title 23, CCR, section 3680. The State Water Board may accept experience in lieu of qualification training. In lieu of a properly certified wastewater treatment facility operator, the State Water Board may approve use of a water treatment facility operator of appropriate grade certified by DDW where water recycling is involved.

6.3.4.6. **Adequate Capacity**

If the Facility is projected to reach capacity within 4 years, the Permittee shall notify the Regional Water Board. A copy of such notification shall be sent to appropriate local elected officials, local permitting agencies, and the press. Factors to be evaluated in assessing reserve capacity shall include, at a minimum, (1) comparison of the wet weather design flow with the highest daily flow, and (2) comparison of the average dry weather design flow with the lowest 30-day flow. The Permittee shall demonstrate that adequate steps are being taken to address the capacity problem. The Permittee shall submit a technical report to the Regional Water Board showing how flow volumes will be prevented from exceeding capacity, or how capacity will be increased, within 120 days after providing notification to the Regional Water Board, or **within 120 days after receipt of Regional Water Board notification** that the Facility will reach capacity within 4 years. The time for filing the required technical report may be extended by the Regional Water Board. An extension of 30 days may be granted by the Executive Officer, and longer extensions may be granted by the Regional Water Board itself. [Cal. Code Regs., tit. 23, § 2232].

6.3.5. **Other Special Provisions**

6.3.5.1. **Storm Water**

For the control of storm water discharges from the Facility, if required, the Permittee shall seek separate authorization to discharge under the requirements of the State Water Board's Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for

Storm Water Discharges Associated with Industrial Activities (or subsequent renewed versions of the NPDES General Permit CAS000001), which is not incorporated by reference in this Order.

BMPs to control the run-on of storm water to the Facility site shall be maintained and upgraded as necessary. The Permittee shall describe the effectiveness of these storm water BMPs, as well as activities to maintain and upgrade these BMPs during the previous year, in its annual self-monitoring report to the Regional Water Board.

6.3.5.2. Compliance Schedules

6.3.5.2.1. Compliance Schedule for Final Effluent Limitations for Disinfection Byproducts

6.3.5.2.2. The Permittee shall implement activities according to the following schedule to achieve compliance with the effluent limitations for dichlorobromomethane, chlorodibromomethane, total trihalomethanes, and Haloacetic Acids established in Section 4.1.2 of this Order.

Table 5. Schedule for Compliance with Final Effluent Limitations for Disinfection Byproducts

Task	Task Description	Compliance Date
1	Complete full scale chloramine disinfection testing. <ul style="list-style-type: none"> • Install temporary chloramine disinfection system. • Conduct testing to verify chloramination represents a viable disinfection process. 	October 31, 2023
2	Submit a technical report on full-scale chloramine disinfection study including monitoring results for disinfection byproducts and ammonia at monitoring locations EFF-001 and EFF-003; analysis of chloramine disinfection as viable disinfection process to comply with final effluent limitations for final ammonia impact ratio, total coliforms, dichlorobromomethane, chlorodibromomethane, total trihalomethanes, and haloacetic acids.	March 1, 2024
3	<p>3.1 If the full-scale chloramine disinfection study concludes that chloramination will result in compliance with final effluent limitations, the Permittee shall submit full system design plans for full chloramine disinfection unit and follow compliance dates outlined in Tasks 4,5, and 7.</p> <p>3.2 If the full-scale chloramine disinfection study concludes that chloramination will not result in compliance with final effluent limitations, then the Permittee shall submit, for Regional Water Board Executive Officer approval, a report identifying additional measures that the Permittee will evaluate in order to reduce the production of and achieve compliance with final effluent limitations</p>	November 1, 2024

Task	Task Description	Compliance Date
	for chlorine disinfection by-products. Possible measures include evaluation of other disinfection methods such as ultraviolet light disinfection or conducting a study to evaluate the potential for dilution credits and a mixing zone to achieve compliance. The permittee shall also meet compliance dates outlined in Tasks 4,6, and 7.	
4	The Permittee shall submit an annual progress report on May 1 beginning in 2023.	May 1, 2023 May 1, 2024 May 1, 2025 May 1, 2026 May 1, 2027
5	Completion of construction and installation of chloramine disinfection unit (fully installed and operational).	July 1, 2025
6	Submit a work plan for alternate disinfection byproduct reduction strategy. Including sources of financing and specific milestone tasks to be completed.	November 1, 2025
7	Achieve compliance with final effluent limitations for dichlorobromomethane, chlorodibromomethane, total trihalomethanes, and haloacetic acids as required by this Order.	May 31, 2025 if Task 3.1 is implemented October 1, 2027 if Task 3.2 is implemented

7. COMPLIANCE DETERMINATION

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

7.1. General

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

7.2. Multiple Sample Data

When determining compliance with an AMEL for priority pollutants, and more than one sample result is available, the Permittee 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 Permittee shall compute the median in place of the arithmetic mean in accordance with the following procedure.

- 7.2.1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
- 7.2.2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two middle values, 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 and a value of zero shall be used for the ND or DNQ value in the median calculation for compliance purposes only. Using a value of zero for DNQ or ND samples does not apply when performing reasonable potential or antidegradation analyses.

7.3. **Average Monthly Effluent Limitation (AMEL)**

If the average (or when applicable, the median determined by subsection 7.2, above, for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Permittee will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 1 days of non-compliance in a 1-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Permittee will be considered out of compliance for that calendar month. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar month, the Permittee shall calculate the median of all sample results within that month for compliance determination with the AMEL as described in section 7.2, above.

7.4. **Average Weekly Effluent Limitation (AWEL)**

If the average (or when applicable, the median determined by subsection 7.2, above, for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Permittee will 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 Permittee will be considered out of compliance for that calendar week. The Permittee will only be considered out of compliance for days when the discharge occurs. If there are ND or DNQ results for a specific constituent in a calendar week, the Permittee shall calculate the median of all

sample results within that week for compliance determination with the AWEL as described in section 7.2, above.

7.5. **Maximum Daily Effluent Limitation (MDEL)**

If a daily discharge (or when applicable, the median determined by subsection 7.2, above, for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Permittee will be considered out of compliance for that parameter for that 1 day only within the reporting period.

7.6. **Instantaneous Minimum Effluent Limitation**

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

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total sum of time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

7.7. **Instantaneous Maximum Effluent Limitation**

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

If the Permittee monitors pH continuously, pursuant to 40 C.F.R. section 401.17, the Permittee shall be in compliance with the pH limitation specified herein provided that both of the following conditions are satisfied: (1) the total sum of time during which the pH values are outside the required range of pH values shall not exceed 7 hours and 26 minutes in any calendar month; and (2) no individual excursion from the range of pH values shall exceed 60 minutes.

7.8. **Bacteriological Limitations**

- 7.8.1. **Median (Total Coliform Bacteria).** The median is the central tendency concentration of the pollutant. The data set shall be ranked from low to high,

ranking any ND concentrations lowest, followed by quantified values. The median value is determined based on the number of data points in the set. 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, the median is the average of the two middle values, unless one or both points are ND or DNQ, in which case the median value shall be the lower of the two middle data points. DNQ is lower than a detected value, and ND is lower than DNQ.

- 7.8.2. **Six-week Rolling Geometric Mean (*E. coli* bacteria).** The rolling geometric mean shall be calculated using at least 5 sample results over a 6-week period from a site using the following formula:

$$\text{Geometric Mean} = \sqrt[n]{(x_1)(x_2)(x_3) \dots (x_n)}$$

where x is the sample value and n is the number of samples taken.

A minimum of three samples over a six-week period is necessary to calculate the geometric mean. When less than three samples are taken in a six-week period, compliance with the *E. coli* receiving water objective shall be determined using the Statistical Threshold Value (STV). If the Permittee samples less than three times during a six-week period, compliance shall be assessed by comparing the single sample results to the STV.

- 7.8.3. **Statistical Threshold Value (*E. coli* bacteria).** (1) The data set shall be ranked from low to high, ranking any ND concentrations lowest, followed by quantified values. (2) The number of sample results should then be multiplied by 90 percent then rounded up to the nearest whole number. (3) Count the values in the data set starting from lowest to highest until the number indicated in step (2) is reached. (4) To be compliant with the statistical threshold value in Receiving Water Limitation 5.1.20, all sample results less than the point described in step 3 must be less than 100 MPN/100 mL.
- 7.8.4. **7-Day Median.** Compliance with the 7-day median will be determined as a rolling median using the bacteriological results of the last 7 days for which analyses have been completed
- 7.8.5. **Geometric Mean (GM).** The geometric mean is a type of mean or average that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geometric mean shall be calculated using the 5 most recent samples from a site using the following formula:

$$\text{Geometric Mean} = \sqrt[n]{(x_1)(x_2)(x_3) \dots (x_n)}$$

Where x is the sample value and n is the number of samples taken.

7.9. Chronic Toxicity Requirements

- 7.9.1. If a chronic toxicity test exceeds the applicable chronic toxicity MDEL, as identified in sections 4.1.1.3.1 of this Order, the Permittee will be considered out of compliance for that single sample.
- 7.9.2. If chronic toxicity testing exceeds the chronic toxicity MMEL, as identified in section 4.1.1.3.2 of this Order, the Permittee will be considered out of compliance for that month. No more than one chronic toxicity test initiated in a calendar month¹ shall result in a “fail” at the IWC for any endpoint.
- 7.9.3. Compliance with chronic toxicity routine monitoring, compliance monitoring, and TRE provisions shall constitute compliance with the chronic toxicity requirements, as specified in the MRP (Attachment E, sections 5.1 and 5.2).

7.10. Average Dry Weather Flow

Compliance with Discharge Prohibition 3.8 will be determined once each calendar year by evaluating all equalized influent flow data collected at Monitoring Location INF-001 in a calendar year. The flow through the Facility, measured daily and averaged monthly, must be 1.4 mgd or less for the month with the lowest average monthly flow.

7.11. Peak Daily Wet Weather Flow

The peak daily wet weather flow is the maximum flow rate that occurs over a 24-hour period. Compliance with Discharge Prohibition 3.8 will be determined daily by measuring the daily average equalized influent flow at Monitoring Location INF-001. If the measured daily average flow exceeds 1.25 mgd, the Permittee is not in compliance with Prohibition 3.8 of this Order.

7.12. Percent Removal

Percent removal shall be determined from the monthly average value of influent wastewater concentration in comparison to the monthly average value of effluent concentration for the same constituent over the same time period as measured at Monitoring Locations INF-001 and EFF-001, respectively.

¹ For purposes of aquatic toxicity monitoring, a calendar month shall be defined as the period of time from a day of one month to the day before the corresponding day of the next month if the corresponding day exists, or if not to the last day of the next month (e.g., from January 1 to January 31, from June 15 to July 14, or from January 31 to February 28).

7.13. Six-Month Median Effluent Limitations

The six-month median effluent limitations shall apply as a moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.

7.14. Single Sample Maximum

All single sample results are compared to single sample maximum and median limitations. Single sample results are only compared to the geometric mean and six-week rolling geometric mean, and statistical threshold value when sampling is required at the frequency required to properly assess compliance, as further stated in 7.8.2. through 7.8.4, above. Compliance with a single annual sample is determined in comparison to single sample maximum limitations only. If single sample maximums are routinely exceeded, the Regional Water Board may require additional sampling to further assess the effluent and to determine impacts on the receiving water.

7.15. Chlorine Residual Effluent Limitations

- 7.15.1. Compliance with the chlorine residual effluent limitations in section 4.1.1, Table 2 shall be based on continuous monitoring at Monitoring Location EFF-001 in order to demonstrate that the discharge has been adequately dechlorinated. Continuous monitoring analyzers for chlorine residual or for dechlorination agent residual in the effluent are appropriate methods for compliance determination. A positive residual dechlorination agent in the effluent indicates that chlorine is not present in the discharge, which demonstrates compliance with the effluent limitations. This type of monitoring can also be used to prove that some chlorine residual exceedances are false positives. Continuous monitoring data showing either a positive dechlorination agent residual or a chlorine residual at or below the prescribed limit are sufficient to show compliance with the total residual chlorine effluent limitation prescribed in section 4.1.1, Table 2, provided that the instruments are maintained and calibrated in accordance with the manufacturer's recommendations.
- 7.15.2. The Permittee shall calibrate continuous analyzers (e.g., chlorine residual, bisulfite residual) against grab samples as frequently as necessary to maintain accurate and reliable operation.
- 7.15.3. The Permittee shall report from discrete readings of the continuous monitoring every hour on the hour. Compliance shall be based on an average of these discrete hourly readings on a daily basis. The Permittee shall retain continuous monitoring readings for at least three years. The Regional Water Board retains the right to use all continuous monitoring data for discretionary enforcement.

Any excursion above the chlorine residual effluent limitations specified in section 4.1.1, Table 2, of this Order is a violation. If the Permittee conducts continuous monitoring and the Permittee can demonstrate through data collected from a back-up monitoring system, that a chlorine spike recorded by the continuous monitor was not actually due to chlorine, then any excursion resulting from the recorded spike will not be considered an exceedance, but rather reported as a false positive. Records supporting validation of false positives shall be maintained in accordance with Attachment D, section 4 Standard Provisions.