CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION

5550 Skylane Blvd, Suite A
Santa Rosa, CA 95403-1072
Phone (707) 576-2220 • Fax (707) 523-0135
California State Water Resources Control Board Website
(http://www.waterboards.ca.gov)

ORDER NO. R1-2024-0004
NPDES NO. CA0023043
WDID NO. 1B83100OSON
WASTE DISCHARGE REQUIREMENTS AND MASTER RECYCLING PERMIT

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

Permittee	**Forestville Water District**
Name of Facility	**Wastewater Treatment, Recycling, and Disposal Facility**
Facility Address	**6194 Forestville Street** **Forestville, CA 95436** **Sonoma County**

Table 1. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
002	Disinfected Tertiary Treated Municipal Wastewater	38° 27’ 58”	122° 53’ 18”	Jones Creek, Tributary to Green Valley Creek, Tributary to the Russian River

Discharge Point	Effluent Description	Discharge Point Latitude (North-South)	Discharge Point Longitude (East-West)	Receiving Water
003	Disinfected Tertiary Treated Municipal Wastewater	--	--	Authorized Recycled Water Use Sites[1]/Groundwater

Table Notes:

1. Authorized recycled water use sites means sites which have been evaluated for California Environmental Quality Act (CEQA) compliance and addressed in the Permittee's title 22 Recycled Water Engineering Report and approved by the State Water Board Division of Drinking Water (DDW) and the Regional Water Board.

This Order was adopted on: **April 4, 2024**
This Order shall become effective on: **June 1, 2024**
This Order shall expire on: **May 31, 2029**

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: **May 31, 2028.** 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 **April 4, 2024**.

_____
Valerie Quinto, Executive Officer

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1. FACILITY INFORMATION

Information describing the Forestville Water District (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 I are also incorporated into this Order.

2.3. Provisions and Requirements Implementing State Law

The provisions/requirements in sections 3.5, 4.4, 4.5, and 5.2 and section 9 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.

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

The Permittee operates a wastewater treatment facility within a community located along the Lower Russian River in Sonoma County. Discharge to Jones Creek is upstream of small and disadvantaged communities, including Monte Rio and Villa Grande. The discharge is classified as "minor" under federal regulations, and during the term of the prior permit, Order No. R1-2018-0002, from October 1 through May 14, the Facility discharged treated wastewater to the Lower Russian River. Among other updates, this renewed permit contains new requirements to implement bacteria and dissolved oxygen limitations and implement provisions for chronic toxicity. Expanded monitoring and reporting requirements are included in this renewed Order to ensure waste discharges do not exceed water quality objectives. The Permittee is also currently planning improvements to its wastewater treatment facility and implementing upgrades to the collection system as daily maintenance is completed.

On July 26, 2018, the Regional Water Board adopted Time Schedule Order (TSO) No. R1-2018-0037 that established interim effluent limitations for cyanide, ammonia and nitrate based on the reasonable potential analysis performed during the previous permit term.

This Order does not contain a time schedule in accordance with section 13263, subdivision (c) for achieving applicable water quality objectives, an alternative compliance path that allows time to come into compliance with water quality objectives, or a water quality variance. (Wat. Code, § 13149.2, subd. (d).)

The Regional Water Board publicly noticed the permit and provided opportunities for public comment. Public notice was provided to the public, interested persons, and public agencies in the region with jurisdiction over natural resources in the affected area, including the Sonoma County Health Department. While 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 conducted outreach consistent with Water Code section 189.7.

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. R1-2018-0002 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements in this Order. This action in no way prevents the 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 0.130 mgd, measured daily and averaged over a calendar month. The peak weekly wet weather flow of waste through the Facility shall not exceed 0.576 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 Russian 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 (Discharge Season), discharges of treated wastewater to Jones Creek, tributary to the Russian River via Green Valley Creek, shall not exceed one percent of the flow of Jones Creek, as measured in section 7.12 of this Order. For the purposes of this Order, compliance with this discharge prohibition shall be determined as follows:

3.10.1. The discharge of advanced 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 Jones Creek. Daily flow shall be based on flow meter comparisons reasonably read between the hours of 12:01 am and 12:00 midnight; and

3.10.2. In no case shall the total volume of tertiary treated wastewater discharged in a calendar month exceed one percent of the total volume of Jones Creek in the same calendar month. At the beginning of the discharge season, the monthly flow volume comparisons 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 comparisons shall be based on the first day of the calendar month to the date when the discharge ceased for the season.

3.11 The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.

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 002

The discharge of treated wastewater shall maintain compliance with the following effluent limitations at Discharge Point 002, with compliance measured at Monitoring Locations INT-001B, INT-001, and EFF-002 as described in the Monitoring and Reporting Program, Attachment E.

4.1.1. Monitoring Location INT-001B.

Table 2. Effluent Limitations - Monitoring Location INT-001B

Parameter[1]	Units	Average Monthly	Average Weekly
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	10	15

Table Notes
1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.

4.1.1.1. **Percent Removal**. The average monthly percent removal of BOD_5 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 INT-001B.

4.1.2. Monitoring Location INT-001C.

Table 3. Effluent Limitations - Monitoring Location INT-001C

Parameter[1]	Units	Average Monthly	Average Weekly
Total Suspended Solids	mg/L	10	15

Table Notes
1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.

4.1.2.1. **Percent Removal**. The average monthly percent removal of TSS 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 INT-001C.

4.1.2.2. **Disinfection.** Disinfected effluent discharged to the 3.25 million gallon treated effluent storage pond and discharged to Discharge Points 002 and 003 shall not contain total coliform bacteria exceeding the following concentrations, as measured at Monitoring Location INT-001C:

4.1.2.2.1. The median concentration shall not exceed a Most Probable Number (MPN) of 2.2 per 100 milliliters (mL) using the bacteriological results of the last 7 days (rolling 7 days) for which analyses have been completed;[1]

4.1.2.2.2. The number of coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period; and

4.1.2.2.3. No sample shall exceed an MPN of 240 total coliform bacteria per 100 milliliters.

4.1.3. **Monitoring Location EFF-002.**

Table 4. Effluent Limitations[1] - Monitoring Location EFF-002

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
pH	s.u.	--	--	6.5	8.5
Chlorine, Total Residual[2]	mg/L	0.01	0.02	--	--

[1] See section 7.8 of this Order regarding compliance with bacteriological limitations.

Parameter	Units	Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Cyanide (as CN)[3]	µg/L	4.4	7.9	--	--
Dichlorobromomethane	µg/L	0.56	1.1	--	--
Ammonia Impact Ratio[4]	Ratio	1.0	1.0	--	--
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--	--
Manganese	mg/L	50	100	--	--

Table Notes:

1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.
2. See section 7.16 of this Order regarding compliance with chlorine residual limitations.
3. The Permittee may, at its option, analyze for cyanide as total or weak acid dissociable cyanide using protocols specified in 40 C.F.R. Part 136, or an equivalent method in the latest Standard Method edition.
4. 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 H 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 H 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.

4.1.3.1. **Chronic Toxicity.** The discharge, as measured at Monitoring Location EFF-002 shall meet the following effluent limitations:

4.1.3.1.1. **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.

4.1.3.1.2. **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.

4.2. Interim Effluent Limitations – Not Applicable

This Order does not establish interim effluent limitations or schedules for compliance with final limitations.

4.3. Land Discharge Specifications – Not Applicable

This Order does not authorize discharges to land.

4.4. Water Recycling Specifications – Discharge Points 003 and 004

4.4.1. All effluent discharges to the recycled water system and transfers to the Graton Community Services District (CSD) Wastewater Treatment Facility (WWTF) are from the on-site effluent storage pond; therefore, the Permittee shall maintain compliance with the effluent limitations identified in sections 4.1.2.2 above, at monitoring location INT-001C, for discharges to the recycled water system and transfers to the Graton CSD storage ponds.

4.4.2. During periods of discharge to the recycled water system and transfers to the Graton CSD storage ponds, the Permittee shall maintain compliance with the following effluent limitations at Discharge Points 003 and 004 as measured at Monitoring Location REC-001 as described in the attached MRP.

Table 5. Recycled Water Discharge Limitations – Discharge Points 003 and 004 – Monitoring Location REC-001

Parameter[1]	Units	Average Monthly	Instantaneous Minimum	Instantaneous Maximum
pH	standard units	--	6.0	9.0
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--
Total Dissolved Solids (TDS)	mg/L	500	--	--

Table Notes:
1. See Definitions in Attachment A and Compliance Determination discussion in section 7 of this Order.

4.4.3. Water Recycling Requirements

4.4.3.1. This Order authorizes the Permittee to reuse treated municipal wastewater that complies with effluent limitations contained in section 4 of the Order for uses that have been addressed in an approved title 22 Engineering Report and for which recycled water user agreements have been negotiated.

4.4.3.2. Recycled water production, distribution, and use shall be in compliance with all of the following requirements:

4.4.3.2.1. All requirements of this Order, including Attachment I to this Order;

4.4.3.2.2. Regulations related to recycled water contained in Water Code sections 13500 – 13577 (Water Reclamation);

4.4.3.2.3. Regulations related to recycled water (including its subsequent revisions) contained in California Code of Regulations, title 17, sections 7583 – 7586, sections 7601 – 7605, and California Code of Regulations, title 22, division 4, chapter 3 (Uniform Statewide Recycling Criteria);

4.4.3.2.4. A DDW-approved title 22 Engineering Report that demonstrates or defines compliance with the Uniform Statewide Recycling Criteria (and any future amendments thereto);

4.4.3.2.5. Any applicable Salt and Nutrient Management Plan adopted by the Regional Water Board as a Basin Plan amendment;

4.4.3.2.6. Any applicable water quality related CEQA mitigation measure;

4.4.3.2.7. Water Code section 1211 for facilities where the changes to the discharge are necessary to accomplish water recycling and will result in changes in flow in a watercourse; and

4.4.3.2.8. Policy for Water Quality Control for Recycled Water (Recycled Water Policy).

4.4.3.3. **Joint Use Recycled Water Program Requirements**

The Permittee proposes to implement a Joint Use Recycled Water program (Joint Use Program) with the Graton CSD Wastewater Treatment Facility, as further described in section 2.2.5 of the Fact Sheet. This Joint Use Program will entail transfers of recycled water between the Permittee's and Graton CSD's recycled water systems. Under this program, the Permittee's recycled water commingled with Graton CSD's recycled water could be used to meet irrigation demands in both recycled water systems or could be stored and discharged to receiving waters at each Facility's authorized discharge point.

Prior to implementation of the Joint Use Program, the Permittee shall submit to the Regional Water Board Executive Officer for review and approval, a report including the final design details and any operational modifications required including a schedule of implementation, a revised water balance for the Permittee's storage, reclamation, and disposal system, documentation of CEQA compliance, and recycled water transfer and use agreements. The Permittee shall implement the Joint Use Program upon written approval from the Regional Water Board Executive Officer.

4.5. Other Requirements

4.5.1. Filtration Process Requirements

4.5.1.1. **Filtration Rate.** The rate of filtration through the tertiary filters, as measured at Monitoring Location INT-001A, shall not exceed five (5) gallons per minute per square foot of surface area or other filtration rates authorized in writing by the Regional Water Board Executive Officer and under conditions recommended by DDW.

4.5.1.2. **Turbidity.** The effluent from the advanced wastewater treatment process filters shall at all times be filtered such that the filtered effluent does not exceed any of the following specifications at Monitoring Location INT-001B, prior to discharge to the disinfection unit:

4.5.1.2.1. 0.2 Nephelometric Turbidity Units (NTU) more than 5 percent of the time during any 24-hour period; and

4.5.1.2.2. 0.5 NTU at any time.

4.5.1.3. Filtered effluent in excess of the turbidity specifications shall not enter the recycled water distribution system. Filtered effluent in excess of turbidity specifications shall be automatically diverted to an upstream treatment process unit or to emergency storage as soon as the Permittee is aware of the exceedance. Alternatively, the Permittee may cease transfers through the microfilters until the problem is corrected. The Permittee shall provide notification of non-compliance with the filtration process requirements as required in section 10.1.1.3 of the MRP (Attachment E).

4.6. Disinfection Process Requirements

4.6.1. Treated effluent shall be disinfected in a manner that ensures effective pathogen reduction as described in the following specifications, with compliance measured at the end of the disinfection process at Monitoring Location INT-001C:

4.6.1.1. When discharging to the recycled water system, the chlorine disinfection process shall provide a CT value of not less than 450 milligram-minutes per liter at all times and a modal contact time of not less than 90 minutes.

4.6.1.1.1. The CT value is the product of total chlorine residual and modal contact time measured at the same period. The modal contact time is the amount of time that elapsed between the time that a tracer, such as salt or dye, is injected into the influent at the entrance of the chlorination chamber and the time that the highest concentration of the tracer is observed in the effluent from the chamber.

4.6.1.2. When discharging to Jones Creek when the filter effluent flow is greater than or equal to 0.576 mgd, the chlorine disinfection process shall at all times provide a minimum

continuous chlorine residual concentration of 5.3 milligrams per liter. The Permittee shall initiate daily coliform monitoring when the average influent flow to the Facility from the previous day is greater than or equal to 0.576 mgd.

4.6.1.3. When discharging to Jones Creek when the filter effluent flow is less than 0.576 mgd, the chlorine disinfection process shall at all times provide a CT value of not less than 450 milligram-minutes per liter.

4.6.1.4. Effluent not meeting the CT criteria shall be diverted to an upstream treatment process unit or to emergency storage as soon as the Permittee is aware of the exceedance. The Permittee shall provide notification of non-compliance with disinfection process requirements as required by section 6.1.2.2 of this Order.

4.6.2. **Storage Ponds**. Ponds used for the storage of recycled water shall be constructed in a manner that protects groundwater. Prior to construction of any new wastewater storage ponds or use of any existing pond for storage of recycled water, the Permittee shall submit to the Regional Water Board Executive Officer for review and approval, a technical report that includes design proposals and a technical evaluation that demonstrates that the pond design complies with the Water Code and title 27 of the CCR and is protective of ground water quality. Pond design and operation plan must include features and best management practices (BMPs) to protect groundwater and prevent exceedances of groundwater quality objectives.

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.

5.1.2. 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.

5.1.3. The discharge shall not cause the specific conductance (micromhos) concentration of the receiving waters to increase above 285 micromhos more than 50 percent of the time, or above 375 micromhos more than 10 percent of the time.

5.1.4. The discharge shall not cause the total dissolved solids concentration of the receiving waters to increase above 170 mg/L more than 50 percent of the time, or above 200 mg/L more than 10 percent of the time.

5.1.5. 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.

5.1.6. The discharge shall not cause the turbidity of receiving waters to be increased more than 20 percent above naturally occurring background levels.

5.1.7. The discharge shall not cause receiving waters to contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

5.1.8. 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.

5.1.9. 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.

5.1.10. The discharge shall not cause coloration of receiving waters that causes nuisance or adversely affects beneficial uses.

5.1.11. The discharge shall not cause bottom deposits in receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.

5.1.12. 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.

5.1.13. 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.

5.1.14. The discharge shall not cause a measurable temperature change in the receiving water at any time.

5.1.15. 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.

5.1.16. 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.

5.1.17. 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.

5.1.18. 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.

5.1.19. 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.

5.1.20. 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.

5.1.21. 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).

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 11.7 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 monthly SMR as required by MRP section 11.2.6.2.5. and 11.2.6.2.6.

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 4.2.2.1. and 4.2.2.2., 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 nitrate 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.

6.3.2. **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 11.2.5.3..

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 1** 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.

6.3.4. **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 1** 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 6.3.4.2.1.6 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 disposes of biosolids by hauling sludge off-site to a sanitary landfill. 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 will 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. Stormwater

For the control of stormwater 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 stormwater to the Facility site shall be maintained and upgraded as necessary. The Permittee shall describe the effectiveness of these stormwater BMPs, as well as activities to maintain and upgrade these BMPs during the previous year, in its annual report to the Regional Water Board.

6.3.5.2. Compliance Schedules – Not Applicable

This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations. Order No. R1-2018-0037 established compliance schedules and interim limits for flow, ammonia, nitrate, and cyanide and remains in effect.

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 five samples over a six-week period is necessary to calculate the geometric mean. When less than five 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 five 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 5.1.21, 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 4.2.2.1. or 4.2.2.2. of this Order, the Permittee will be considered out of compliance for that single sample.

7.9.2. If the result of a routine chronic whole effluent toxicity test, using the TST statistical approach, is a “Fail” at the IWC, the Permittee shall conduct a maximum of two additional MMEL compliance tests during the calendar month. If the routine test and one of the additional MMEL compliance test results in a “Fail” at the IWC, the Permittee will be deemed out of compliance with the MMEL.

7.9.2.1. 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).

7.9.3. 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 0.130 mgd or less for the month with the lowest average monthly flow.

7.11. Peak Weekly Wet Weather Flow

The peak weekly wet weather flow in section 3.8 of this Order will be determined by evaluating flow through the Facility at INT-001C, measured daily and averaged weekly. No average weekly flow shall exceed 0.576 mgd.

7.12. **Surface Water Flow**

The volumetric flow of Jones Creek in section 3.10. of this Order will be determined using the formulas described below.

Jones Creek is not equipped with a flow meter; therefore, the reference cross-section of Jones Creek "i" will be used to calculate cross sectional area, hydraulic radius, and wetted perimeter at varying flow depths using the following formulas:

$$n_c = \left[\sum_{i=1}^{N} P_i \, n_i^{1.5} / P\right]^{2/3} \qquad Q = \frac{1.49}{n_c} A R^{2/3} \sqrt{S}$$

Where:

i = Reference cross-section of Jones Creek. Located at the upstream edge of the existing bridge abutments, where the Joe Rodota Trail crosses the creek approximately 240 feet north of Kay Lane.
Q = Flow rate in cubic feet per second.
N_c = Composite roughness coefficient (dimensionless)
A = Cross-sectional area in square feet.
R = Hydraulic radius in feet
S = Channel slope in foot per foot
P = Wetted perimeter of entire channel cross-section in feet
P_i = Wetted perimeter of subdivision I in feet
n_i = n-value for subdivision I (dimensionless)

7.13. **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 INT-001C, respectively.

7.14. **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.

7.15. **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.

7.16. **Chlorine Residual Effluent Limitations**

7.16.1. Compliance with the chlorine residual effluent limitations in section 4.21, Table 2 shall be based on continuous monitoring at Monitoring Location INT-001C 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 4.1.3, Table 4 provided that the instruments are maintained and calibrated in accordance with the manufacturer's recommendations.

7.16.2. 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.

7.16.3. 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.

7.16.4. Any excursion above the chlorine residual effluent limitations specified in section 4.1.3., Table 4, 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.

ATTACHMENT A - DEFINITIONS

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

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

where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

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

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

Basin Plan
A Basin Plan is a water quality control plan that is specific to a Regional Water Quality Control Board (Regional Water Board), and serves as regulations that: (1) define and designate beneficial uses of surface and ground waters, (2) establish water quality objectives to protect the beneficial uses, and (3) provide implementation measures.

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

California Integrated Water Quality System (CIWQS)
CIWQS is the State Water Board, statewide electronic reporting database that provides for electronic reporting of mandatory reports that are requirements of State and Regional Water Board-issued waste discharge requirements.

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

Chronic Toxicity
This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response. See also Test of Significant Toxicity.

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

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

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

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

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

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

Effective Concentration (EC)
A point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC25 is the concentration of toxicant (in percent effluent) that causes a response in 25 percent of the test organisms.

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as wasteload allocation

(WLA) as used in U.S. EPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

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

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

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

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

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

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

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

For the purposes of chronic and acute aquatic toxicity, an MDEL is an effluent limitation based on the outcome of the test of significant toxicity (TST) approach and the resulting percent effect at the IWC.

Median Monthly Effluent Limitation (MMEL):
For the purposes of chronic and acute aquatic toxicity, an MMEL is an effluent limitation based on a maximum of three independent toxicity tests, analyzed using the TST.

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

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

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

MMEL Compliance Tests
For the purposes of chronic and acute aquatic toxicity, MMEL compliance tests are a maximum of two tests that are used in addition to the routine monitoring test to determine compliance with the chronic and acute aquatic toxicity MMEL and MDEL.

Most Sensitive Species
The single species selected from an array of test species to be used in a single species laboratory test series to determine toxic effects of effluent or ambient water.

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

Null Hypothesis
A statement used in statistical testing that has been put forward either because it is believed to be true or because it is to be used as a basis for argument but has not been proved.

Percent Effect
The value that denotes the difference in response between the test concentration and the control, divided by the mean control response, and multiplied by 100.

Permitting Authority
The State Water Board or a regional water board that issues a permit, waste discharge requirements, water quality certification, or other authorization for the discharge or proposed discharge of waste. To the extent that the action is delegable, the term "Permitting Authority" can include the Executive Officer or Executive Director.

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

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

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

Publicly Owned Treatment Works (POTW)
A treatment works as defined in section 212 of the Clean Water Act (CWA), which is owned by a government agency as defined by section 502(4) of the CWA. Section 502(4) of the CWA defines a municipality as a city, town, borough, county, parish, district, association, or other public body created by or pursuant to state law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes. This definition includes any devices and systems used in the storage, treatment, recycling, and recycling of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharges from such a treatment works.

Reasonable Potential
A designation used for a waste discharge that is projected or calculated to cause or contribute to an excursion above a water quality standard.

Receiving Water
A receiving water is a water of the State that receives a discharge of waste.

Recycled Water
Water which, as a result of treatment of municipal wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource (Water Code section 13050). The terms “recycled water” and “reclaimed water” have the same meaning (Water Code section 26).

Regulatory Management Decision (RMD)
The decision that represents the maximum allowable error rates and thresholds for toxicity and non-toxicity that would result in an acceptable risk to aquatic life.

Replicates
Two or more independent organism exposures of the same treatment (i.e., effluent concentration) within a toxicity test. Replicates are typically conducted with separate test chambers and test organisms, each having the same effluent concentration.

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

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Septage
Defined as the liquid or solid material removed from a septic tank, cesspool, portable toilet, type III marine sanitation device, recreational vehicle’s sanitation tank, or similar storage or treatment works that receives domestic waste.

Six-Month Median Effluent Limitation
The highest allowable moving median of all daily discharges for any 180-day period.

Sludge and Biosolids
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.

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

Species Sensitivity Screening
An analysis to determine the single most sensitive species from an array of test species to be used in a single species laboratory test series.

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

$$\text{Standard Deviation } (\sigma) = \frac{\Sigma(X-\mu)^2}{(n-1)^{0.5}}$$

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

Test of Significant Toxicity (TST)
The statistical approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010). TST was developed by the U.S. Environmental Protection Agency (EPA) for analyzing whole effluent toxicity (WET) and ambient toxicity data. Using the TST approach, the sample is declared toxic if there is greater than or equal to a 25% effect in chronic tests, or if there is greater than or equal to a 20% effect in acute tests at the permitted instream waste concentration (IWC) (referred to as the toxic regulatory management decision (RMD)). The sample is declared non-toxic if there is less than or equal to a 10% effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD).

Toxicity Identification Evaluation
Techniques used to identity the unexplained cause(s) of toxic event. A TIE involves selectively removing classes of chemicals through a series of sample manipulations, effectively reducing complex mixtures of chemicals in natural waters to simple components for analysis. Following each manipulation, the toxicity sample is assessed to see whether the toxicant class removed was responsible for the toxicity.

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

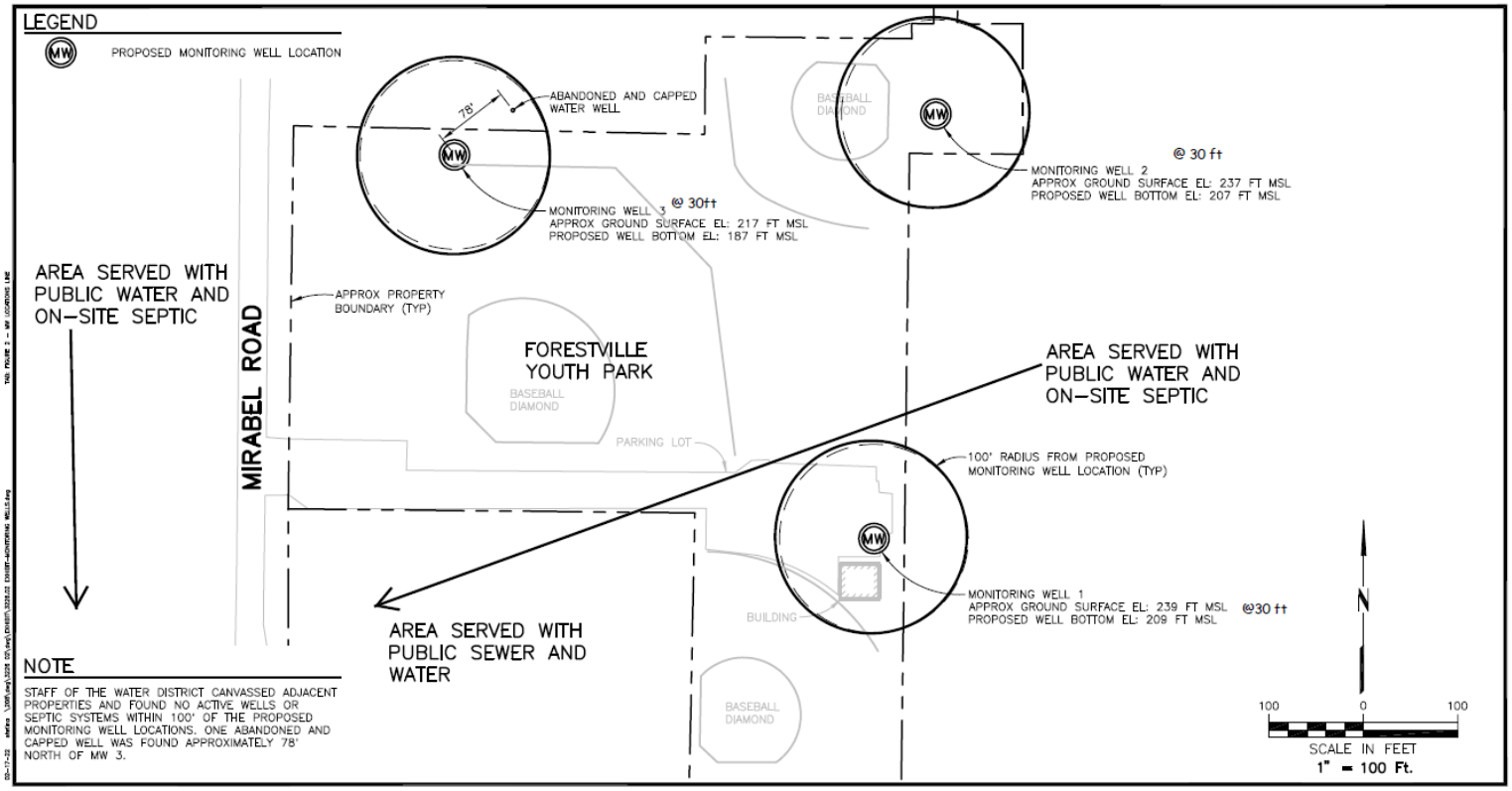
Toxicity Provisions
Refers to Section III.B and Section IV.B of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.

Water Quality Objective
A water quality objective is the amount of pollutant or a parameter level which is established for the reasonable protection of beneficial uses of surface waters and groundwater, and the prevention of nuisance.

Water Recycling
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

ATTACHMENT B - MAPS

GROUNDWATER MONITORING LOCATIONS



FORESTVILLE WATER DISTRICT
RECYCLED WATER SITE MONITORING
PROPOSED MONITORING WELL LOCATIONS-FORESTVILLE YOUTH PARK
FEBRUARY 2022

Brelje & Race

FIGURE 2

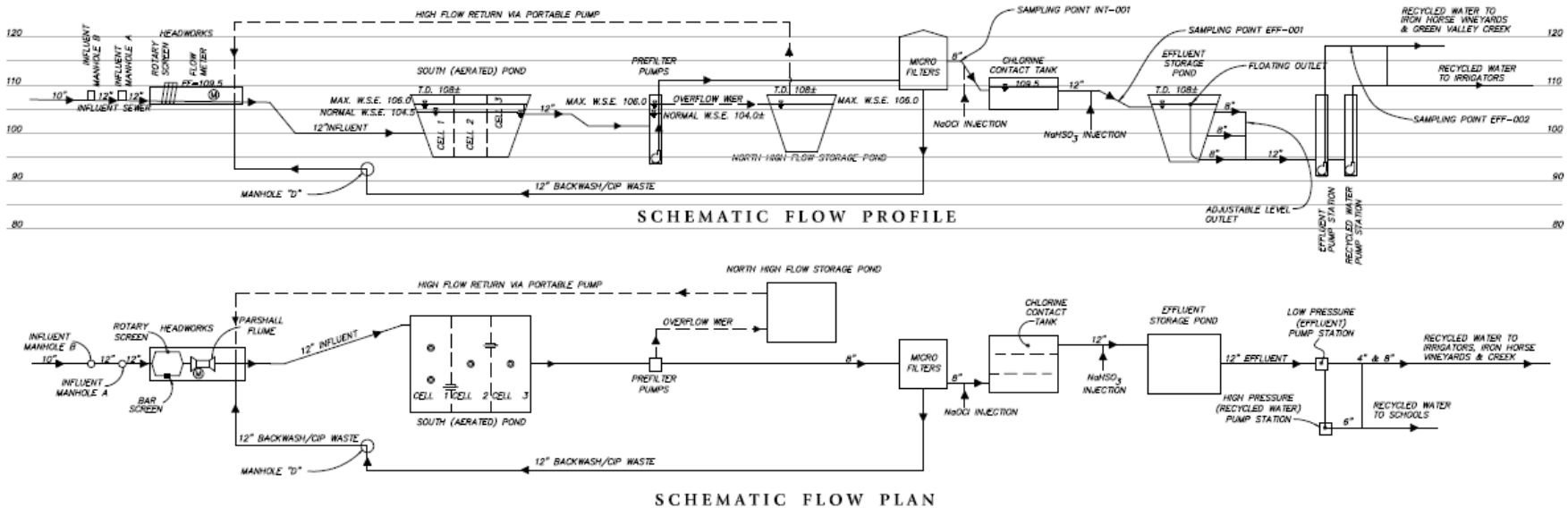
ATTACHMENT C - FLOW SCHEMATIC

DESIGN CRITERIA

FLOWS	
AVERAGE DRY WEATHER FLOW (ADWF)	0.130 MGD
PEAK WEEKLY FLOW (MDF)	0.580 MGD
PEAK DAILY WET WEATHER FLOW (PWWF)	0.780 MGD
WASTEWATER CONSTITUENTS	
BOD5	335 mg\L
TSS	335 mg\L
HEADWORKS	
HYDROSCREEN CAPACITY (MAX.)	2.0 MGD
NUMBER SCREENS	1
MOTOR HORSEPOWER	5 HP
FLUME CAPACITY (MAX.)	1.25 MGD
FLUME SIZE	3 INCH
NO. OF FLUMES	1
AERATED POND (SOUTH POND)	
DESIGN CAPACITY (ADWF)	0.130 MGD
NO. OF CELLS	3
TOTAL VOLUME	2.93 MG
EQUALIZATION VOLUME	0.52 MG
OPERATING VOLUME	2.41 MG
AERATOR HORSEPOWER (TOTAL)	23 HP
CELL 1	2 @ 10 HP
CELL 2	7 1/2 HP
CELL 3	5 HP

HIGH FLOW STORAGE POND (NORTH POND)	
DESIGN CAPACITY (ADWF)	0.130 MGD
NO. OF PONDS	1
NO. OF CELLS	3
TOTAL POND VOLUME	0.75 MG
EQUALIZING VOLUME	0.23 MG
OPERATING VOLUME	0.52 MG
CELL 1	0.25 MG
CELL 2	0.25 MG
CELL 3	0.20 MG
PREFILTER PUMP STATION	
DESIGN CAPACITY (MDF+FBR)	0.67 MGD
NO. OF PUMPS	3
PUMP CAPACITY (EACH)	60 TO 480 GPM
TOTAL DYNAMIC HEAD	105 FT TO 130 FT
MOTOR HORSEPOWER (EACH)	30 HP
MICROFILTRATION FACILITIES	
DESIGN CAPACITY	0.58 MGD
MAXIMUM CLEAN IN PLACE FREQUENCY	14 days
FILTER BACKWASH RATE (FBR) (10%)	0.03 MGD
CHLORINATION FACILITIES	
DESIGN CAPACITY	0.58 MGD
APPLICATION RATE	50 lb\day
CT	450 mg-min/L

DECHLORINATION FACILITIES	
DESIGN CAPACITY	0.58 MGD
APPLICATION RATE	20 lb\day
EFFLUENT STORAGE PONDS	
ON-SITE STORAGE CAPACITY	2.3 MG
OFF-SITE STORAGE CAPACITY	16 MG
EFFLUENT PUMP STATION	
DESIGN CAPACITY	800 GPM
NO. OF PUMPS	2
PUMP CAPACITY (EACH)	500 GPM
TOTAL DYNAMIC HEAD	200 FT
MOTOR HORSEPOWER (EACH)	50 HP
RECYCLED WATER PUMP STATION	
DESIGN CAPACITY	250 GPM
NO. OF PUMPS	2
PUMP CAPACITY	250 GPM
TOTAL DYNAMIC HEAD	350 FT
MOTOR HORSE POWER	40 HP
IRRIGATION SYSTEM	
TOTAL NO. OF IRRIGATION SITES	8
IRRIGATION AREA & USAGE	25 AC/86 AC-FT
APPLICATION RATE	12 IN/AC/YR



ATTACHMENT D - STANDARD PROVISIONS

1. STANDARD PROVISIONS – PERMIT COMPLIANCE

1.1. Duty to Comply

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

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

1.2. Need to Halt or Reduce Activity Not a Defense

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

1.3. Duty to Mitigate

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

1.4. Proper Operation and Maintenance

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

1.5. Property Rights

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

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

1.6. **Inspection and Entry**

The Permittee shall allow the Regional Water Board, State Water Board, U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 118(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1.6.1. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 118(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

1.6.2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 118(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

1.6.3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 118(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); and

1.6.4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 118(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, §§ 13267, 13383.)

1.7. **Bypass**

1.7.1. **Definitions**

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

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

1.7.2. **Bypass not exceeding limitations**. The Permittee may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient

operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance 1.7.3, 1.7.4, and 1.7.5 below. (40 C.F.R. § 122.41(m)(2).)

1.7.3. **Prohibition of bypass.** Bypass is prohibited, and the Regional Water Board may take enforcement action against a Permittee for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

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

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

1.7.3.3. The Permittee submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance 1.7.5 below. (40 C.F.R. § 122.41(m)(4)I(C).)

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

1.7.5. **Notice**

1.7.5.1. **Anticipated bypass.** If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least 10 days before the date of the bypass. The notice shall be sent to the Regional Water Board. As of December 21, 2025, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting 5.10 below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

1.7.5.2. **Unanticipated bypass.** The Permittee shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting 5.5 below (24-hour notice). Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(ii).)

1.8. **Upset**

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

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

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

1.8.2.1. An upset occurred and that the Permittee can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

1.8.2.2. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

1.8.2.3. The Permittee submitted notice of the upset as required in Standard Provisions – Reporting 5.5.2.2 below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

1.8.2.4. The Permittee complied with any remedial measures required under Standard Provisions – Permit Compliance 1.3 above. (40 C.F.R. § 122.41(n)(3)(iv).)

1.8.3. **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

2. STANDARD PROVISIONS – PERMIT ACTION

2.1. General

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

2.2. **Duty to Reapply**

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

2.3. **Transfers**

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

3. STANDARD PROVISIONS – MONITORING

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

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

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

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

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

3.2.3. In the case of sludge use or disposal approved under 40 C.F.R. part 136, monitoring must be conducted according to test procedures in part 503 unless otherwise specified in 40 C.F.R. or other test procedures have been specified in this Order.

4. STANDARD PROVISIONS – RECORDS

4.1. Except for records of monitoring information required by this Order related to the Permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 C.F.R. part 503), the Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the North Coast Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

4.2. Records of monitoring information shall include:

4.1.1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

4.1.2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

4.1.3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4.1.4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

4.1.5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

4.1.6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

4.1.7. The name and address of any permit applicant or Permittee (40 C.F.R. § 122.7(b)(1)); and

4.1.8. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

5. STANDARD PROVISIONS – REPORTING

5.1. Duty to Provide Information

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

5.2. Signatory and Certification Requirements

5.2.1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions – Reporting 5.2.2, 5.2.3, 5.2.4, 5.2.5, and 5.2.6 below. (40 C.F.R. § 122.41(k).)

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

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

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

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

5.2.3.3. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

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

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

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

5.2.6. Any person providing the electronic signature for documents described in Standard Provisions – 5.2.1, 5.2.2, or 5.2.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting 5.2 and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

5.3. **Monitoring Reports**

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

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

5.3.3. If the Permittee monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be

included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

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

5.4. Compliance Schedules

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

5.5. Twenty-Four Hour Reporting

5.5.1. The Permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Permittee becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the initial recipient defined in Standard Provisions – Reporting 5.10. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Permittee to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

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

5.5.2.1. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

5.5.2.2. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.5.3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

5.6. **Planned Changes**

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

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

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

5.6.3. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions—Notification Levels 7.1.1). (40 C.F.R. § 122.41(l)(1)(ii).)

5.7. **Anticipated Noncompliance**

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

5.8. **Other Noncompliance**

The Permittee shall report all instances of noncompliance not reported under Standard Provisions – Reporting 5.3, 5.4, and 5.5 above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting 5.5 above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting 5.5 and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Permittee to electronically submit reports not related to

combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

5.9. **Other Information**

When the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or U.S. EPA, the Permittee shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

5.10. **Initial Recipient for Electronic Reporting Data**

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

6. STANDARD PROVISIONS – ENFORCEMENT

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

7. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

7.1. **Publicly-Owned Treatment Works (POTWs)**

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

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

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

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

ATTACHMENT E - MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 C.F.R.) require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

1. GENERAL MONITORING PROVISIONS

1.1. Wastewater Monitoring Provision.

Composite samples may be taken by a proportional sampling device or by grab samples composited in proportion to flow. In compositing grab samples, the sampling interval shall not exceed 1 hour.

1.2. Supplemental Monitoring Provision.

If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved by 40 C.F.R. part 136 or as specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the quarterly and annual discharge monitoring reports.

1.3. Laboratory Certification.

Laboratories analyzing monitoring samples shall be certified by the State Water Resources Control Board (State Water Board), in accordance with the provision of Water Code section 1176, and must include quality assurance/quality control data with their reports.

The Permittee may analyze pollutants with short hold times (e.g., pH, chlorine residual, etc.) with field equipment or its on-site laboratory provided that the Permittee has standard operating procedures (SOPs) that identify quality assurance/quality control procedures to be followed to ensure accurate results. The Permittee must demonstrate sufficient capability to adequately perform these field tests (e.g., qualified and trained employees, properly calibrated and maintained field instruments). The program shall conform to U.S. EPA guidelines 40 C.F.R. Part 136 and other approved procedures.

1.4. Instrumentation and Calibration Provision.

All monitoring instruments and devices used by the Permittee to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated no less than the manufacturer’s recommended intervals or one-year

intervals, (whichever comes first) to ensure continued accuracy of the devices. 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.

1.5. **Minimum Levels (ML) and Reporting Levels (RL).**

U.S. EPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. Unless otherwise specified by this MRP, all monitoring shall be conducted according to test procedures established at 40 C.F.R. 136, Guidelines Establishing Test Procedures for Analysis of Pollutants. All analyses shall be conducted using the lowest practical quantitation limit achievable using U.S. EPA approved methods. For the purposes of the NPDES program, when more than one test procedure is approved under 40 C.F.R., part 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv).

A U.S. EPA-approved analytical method is sufficiently sensitive where:

1.5.1. The ML is at or below both the level of the applicable water quality criterion/objective and the permit limitation for the measured pollutant or pollutant parameter; or

1.5.2. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

1.5.3. The method has the lowest ML of the U.S. EPA-approved analytical methods where none of the U.S. EPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

Where effluent limitations are set below the lowest achievable quantitation limits, pollutants not detected at the lowest practical quantitation limits will be considered in compliance with effluent limitations. Analysis for toxics listed by the California Toxics Rule (CTR) shall also adhere to guidance and requirements contained in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (2005) (SIP). However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs. For instance, U.S. EPA Method 1631E for mercury is not currently listed in SIP Appendix 4, but it is published with an ML of 0.5 ng/L that makes it a sufficiently sensitive analytical method. Similarly, U.S. EPA Method 245.7 for mercury is published with an ML of 5 ng/L.

1.6. **Discharge Monitoring Report Quality Assurance (DMR-QA) Study.**

The Permittee shall participate in the DMR-QA program and ensure that the results of the DMR-QA Study or the most recent Water Pollution Performance Evaluation Study from each laboratory providing testing services for the permit are submitted annually to the State Water Board website at qualityassurance@waterboards.ca.gov . For more information on the DMR-QA Program, contact the State DMR-QA Coordinator at the aforementioned email address.

2. MONITORING LOCATIONS

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

Table E-1. Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	INF-001	Untreated influent wastewater collected at the plant headworks at a representative point preceding primary treatment.
--	INT-001A	Location for monitoring the surface loading rate through the advanced wastewater treatment (AWT) filters.
--	INT-001B	Treated wastewater immediately following the AWT process and prior to the chlorine contact chamber.
	INT-001C	Treated wastewater after disinfection but prior to discharge to the effluent storage pond.
002	EFF-002[1]	Treated wastewater discharged from the effluent storage pond to Jones Creek.
003	REC-001[1]	Treated wastewater following all treatment and storage in the 3.25 million gallon effluent storage pond, and before it enters the recycled water distribution system.
004	REC-001[1]	Treated wastewater following all treatment and storage in the 3.25 million gallon effluent storage pond, and before for delivery to the Graton Community Services District (CSD) storage ponds.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
--	RSW-001	Upstream receiving water monitoring location in Jones Creek, upstream of the pedestrian bridge at a location that is not influenced by the discharge.
--	RSW-002	Downstream receiving water monitoring location in Jones Creek immediately downstream of the pedestrian bridge in the area influenced by the discharge.
--	BIO-001	A representative sample of the sludge or biosolids generated when removed for disposal.
--	PND-001	Permittee's on-site storage pond
--	PND-002	Iron Horse Vineyards recycled water storage pond
--	PND-003	Russian River Vineyards recycled water storage pond
--	MW-001, MW-002, and MW-003	Groundwater monitoring wells located at Forestville Youth Park, an approved recycled water discharge location.

Table Notes:

1. Monitoring Locations EFF-002 and REC-001 are the same location, the sampling point following the effluent storage pond. Different monitoring location names have been assigned due to differences in monitoring requirements at Discharge Point 002 (discharge to surface waters) and Discharge Points 003 and 004 (discharge to the recycled water system and Graton CSD storage ponds).

3. INFLUENT MONITORING REQUIREMENTS

3.1. Monitoring Location INF-001

3.1.1. The Permittee shall monitor influent to the facility at Monitoring Location INF-001 as follows:

Table E-2. Influent Monitoring – Monitoring Location INF-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method [1]
Influent Flow [2]	mgd	Meter	Continuous	--

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method [1]
Biochemical Oxygen Demand 5 day @ 20°C (BOD_5)	mg/L	24-hr Composite	Monthly	Standard Methods
Total Suspended Solids (TSS)	mg/L	24-hr Composite	Monthly	Standard Methods

Table Notes:

1. In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
2. The Permittee shall report the maximum daily, average daily, and average monthly flows.

4. EFFLUENT MONITORING REQUIREMENTS

4.1. Monitoring Location INT-001B

4.1.1. The Permittee shall monitor treated wastewater prior to disinfection at Monitoring Location INT-001B as follows:

Table E-3. Internal Effluent Monitoring – Monitoring Location INT-001B[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[2]
Biochemical Oxygen Demand 5 day @ 20°C (BOD_5)	mg/L	Grab	Weekly[1]	Standard Methods
BOD_5	% removal	Calculate	Weekly	--
Turbidity[3]	NTU	Meter	Continuous	Standard Methods

Table Notes:

1. Accelerated monitoring (weekly monitoring frequency). If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two samples each of the 2 weeks following receipt of the second sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

1. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).
2. Turbidity monitoring requirements are described in detail in section 10.1.2 of this MRP.

4.2. **Monitoring Location INT-001C**

4.2.1. The Permittee shall monitor tertiary treated effluent prior to contact with the receiving water at Monitoring Location INT-001C during periods of discharge to the 3.25-million-gallon effluent storage pond as follows:

Table E-4. Effluent Monitoring – Monitoring Location INT-001C

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method[2]
Effluent Flow[1]	mgd	Meter	Continuous	--
Total Suspended Solids (TSS)	mg/L	Grab	Weekly[3]	Standard Methods
TSS	% removal	Calculate	Weekly	---
Total Coliform Bacteria	MPN/100 mL	Grab	Daily[4]/ Weekly [3,5]	Standard Methods
Chlorine, Total Residual	mg/L	Meter	Continuous[6,7]	Standard Methods
Disinfection CT[8]	mg-min/L	Calculate	Daily	--
Manganese, Total Recoverable	ug/L	Grab	Quarterly	Standard Methods

Table Notes:

1. Each quarter, the Permittee shall report the daily average and monthly average flows.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).
3. Accelerated monitoring (weekly monitoring frequency). If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two

samples each of the 2 weeks following receipt of the second sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

4. Accelerated monitoring (daily monitoring frequency). If a test result exceeds an effluent limitation, the Permittee shall increase the monitoring frequency to a minimum of twice a day for a week to evaluate whether an exceedance is persisting. If two or more samples in a week exceed an effluent limitation, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
5. Total coliform sampling shall be daily when discharging to the recycled water system. Total coliform sampling may be decreased to weekly when discharging to surface water.
6. Chlorine residual monitoring at Monitoring Location INT-001C shall demonstrate that chlorine residual is present after chlorination. This monitoring shall occur continuously when transferring from the chlorine contact tank to the effluent storage pond.
7. Report minimum daily chlorine residual.
8. Disinfection CT monitoring requirements are described in detail in section 10.2 of this MRP.

4.3. **Monitoring Location EFF-002**

4.3.1. During periods of surface water discharge, the Permittee shall monitor effluent to be discharged to Jones Creek at Monitoring Location EFF-002 as follows:

Table E-5. Effluent Monitoring – Discharge Point 002 – Monitoring Location EFF-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow[1]	mgd	Meter	Continuous	--
Dilution Rate	% of stream flow	Calculation	Daily	--
Chlorine, Total Residual[3]	mg/L	Meter	Continuous	Standard Methods[2]
Dissolved Oxygen	mg/L	Grab	Weekly	Standard Methods[2]
pH	s.u.	Grab	Daily[4]	Standard Methods[2]
Temperature	°F or °C	Grab	Weekly[4]	Standard Methods[2]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hardness, Total (as $CaCO_3$)	mg/L	Grab	Monthly	Standard Methods[2]
Cyanide (as CN)[6]	µg/L	Grab	Monthly[5]	Standard Methods[2]
Dichlorobromomethane	µg/L	Grab	Monthly[5]	Standard Methods[2]
Haloacetic Acids[7]	µg/L	Grab	--[8]	EPA Method 552
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly[4,5]	Standard Methods[2]
Ammonia Nitrogen, Unionized (as N)	mg/L	Calculate	Monthly[4,5]	--
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly[5]	Standard Methods[2,4]
Phosphorus, Total (as P)	mg/L	Grab	Monthly	Standard Methods[2,4]
CTR Priority Pollutants[9]	µg/L	24-hour Composite[10]	Once per permit term[11]	Standard Methods[2,4,12]
Chronic Toxicity[13]	Pass or Fail, and % Effect	Grab	Annually	See Section 5 below
Manganese, Total Recoverable	ug/L	Grab	Monthly[5]	Standard Methods[2]
E. coli Bacteria[14, 15]	MPN/100mL	Grab	Weekly	Standard Methods[2]

Table Notes:

1. Each quarter, the Permittee shall report the daily average and monthly average flows.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).
3. The Permittee shall monitor continuously to demonstrate that the discharge has been adequately dechlorinated to achieve chlorine residual effluent limitations specified in section 4.1.3., Table 4, at all times. The Permittee shall report from discrete readings of the continuous monitoring every hour on the hour and report the average of the hourly readings on a daily basis accordance with Compliance Determination section 7.16 of this Order. The

Permittee shall calibrate chlorine and bisulfite residual analyzers against grab samples as frequently as necessary to maintain accurate and reliable operation.

4. pH and temperature monitoring must coincide with monthly monitoring for ammonia.
5. Accelerated monitoring (monthly monitoring frequency). If a test result exceeds an effluent limitation, the Permittee shall take two more samples, one within 7 days and one within 14 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.
6. The Permittee may, at its option, analyze for cyanide as total or weak acid dissociable cyanide using protocols specified in 40 C.F.R. Part 136, or an equivalent method in the latest Standard Method edition.
7. The sum of the concentrations of monochloracetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.
8. Monitoring for Haloacetic Acids (HAA) shall be conducted in October and the following March during the first year of the permit term. If the total HAA concentration is 30 µg/L or less, monitoring for HAAs may be discontinued. If the total HAA concentration exceeds 30 µg/L, the Regional Water Board Executive Officer may require continued monitoring. If the total HAA concentration exceeds 60 µg/L, monitoring must continue twice annually in March and October until such time that the Permittee demonstrates that the chlorine disinfection system can be controlled to maintain the total HAA concentration below the water quality objective of 60 µg/L.
9. Those pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38. The Permittee is not required to sample and analyze for asbestos. Hardness shall be monitored concurrently with the priority pollutant sample.
10. CTR priority pollutant samples shall be collected using 24-hour composite sampling, except for pollutants that are volatile. Samples for volatile pollutants may be collected as a grab sample.
11. CTR priority pollutant sampling shall be completed no later than **February 21, 2027**. Effluent and receiving water monitoring shall occur concurrently.
12. Analytical methods must achieve the lowest minimum level (ML) specified in Appendix 4 of the SIP and, in accordance with section 2.4 of the SIP, the Permittee shall report the ML and MDL for each sample result.
13. Whole effluent chronic toxicity shall be monitored in accordance with the requirements of Section 5 of this Monitoring and Reporting Program.
14. With approval by the Executive Officer, the minimum sampling frequency may be modified or superseded to conform to the monitoring frequency within the approved Pathogen Special Study Work Plan required by section 11.4.3 of this Attachment E (MRP).
15. A minimum of five samples over a six-week period is necessary to calculate the geometric mean. See also Order section 7.8.2.

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.1. Chronic Toxicity Testing

The Permittee shall conduct chronic toxicity testing in accordance with the *State Policy for Water Quality Control: Toxicity Provisions* adopted on December 1, 2020, and revised on October 5, 2021. The following chronic toxicity testing requirements have been identified as applicable to this Order:

5.1.1. **Toxicity Testing Sample and Location.** The effluent sample shall be collected from Monitoring Location EFF-002. Dilution water and control water shall be prepared and used as specified by the test methods.

5.1.2. **In-stream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC for this discharge is 100 percent effluent.

5.1.3. **Toxicity Test Methods.** Chronic aquatic toxicity tests shall be conducted using one or more of the test species listed below and selected by the Regional Water Board in accordance with the Toxicity Provisions, and shall follow methods identified in the Code of Federal Regulations, title 40, part 136, or other U.S. EPA-approved methods, or included in the following U.S. EPA method manuals: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013); Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition (EPA-821-R-02-014); and Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms, First Edition (EPA-600-R-95-136).

5.1.3.1. A 7-day static renewal toxicity test with a vertebrate, the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).

5.1.3.2. A static renewal toxicity test with an invertebrate, the water flea, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).

5.1.3.3. A 96-hour static non-renewal toxicity test with a plant, the green algae, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

Test results shall be analyzed using the TST as described below. To the extent that U.S. EPA-approved methods require that observations be made of organisms' response in multiple concentrations of effluent or receiving water, the instream waste concentration (IWC) shall be included as one of the selected concentrations, and the TST shall be conducted using the IWC and control as described in Section 5.1.4. below.

5.1.4. **Test of Significant Toxicity.** Aquatic toxicity test data shall be analyzed using the test of significant toxicity (TST) as described in Steps 1 through 7, within section IV.B.1.c of the Toxicity Provisions (Steps). For any chronic aquatic toxicity test method with both lethal and sub-lethal endpoints, the sub-lethal endpoint data shall be in these Steps. For any chronic aquatic toxicity test method with more than one sub-lethal endpoint (i.e., giant kelp), the data for each sub-lethal endpoint shall be independently analyzed using these Steps. The TST is applicable for a data analysis of an IWC compared to a control. For assessing whether ambient water meets the water quality objectives, the undiluted ambient water shall be used as the IWC for purposes of the data analysis as described in the Toxicity Provisions.

5.1.5. **Percent Effect.** The percent effect at the IWC shall be calculated for each endpoint in an aquatic toxicity test, using untransformed data and the following equation:

$$Percent\ Effect\ at\ the\ IWC = \frac{Mean\ Control\ Response - Mean\ IWC\ Response}{Mean\ Control\ Response} \cdot 100$$

5.1.6. **Species Sensitivity Screening.** Species sensitivity screening shall be conducted within 18 months of the Order's adoption. The Permittee shall collect a single effluent sample and concurrently conduct three chronic toxicity tests using the fish, the invertebrate, and the algae species identified in section 5.1.3, above. This sample shall also be analyzed for the parameters required for the discharge at EFF-002. The species that exhibits the highest "Percent (%) Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit term.

Species sensitivity screening conducted prior to an Order's adoption may be considered by the Regional Water Board if that species sensitivity screening data was generated within the last 10 years, remains representative of the Permittee's discharge, and fulfils the species sensitivity screening requirement. The Regional Water Board has determined that species sensitivity screening conducted between January 23, 25, and 28, 2019 remains representative of the Permittee's effluent and the species used for chronic toxicity monitoring shall be *Ceriodaphnia dubia*, until the Order is modified to reflect a new most sensitive species, as identified by the required species sensitivity screening.

5.1.7. **Routine Monitoring Requirements.** The Permittee shall conduct at least one chronic aquatic toxicity test semiannually during which there is expected to be at least 15 days of discharge in the quarter. Initiation of the routine monitoring test shall be at a time that would allow any

required MMEL compliance tests to be initiated within the same calendar month as the routine monitoring test.

5.1.7.1. 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).

5.1.7.2. To the extent feasible, routine monitoring tests shall be evenly distributed across the calendar year or period of seasonal or intermittent discharge.

5.1.8. **Additional Routine Monitoring Requirement.** An additional routine monitoring test shall be required when there is one violation of the MDEL or MMEL, but not two violations in a single calendar month. This additional routine monitoring test is not required if the Permittee is already conducting a TRE, or if the Permittee is required to conduct routine monitoring at or more frequently than a monthly frequency.

This additional routine monitoring test shall be initiated within two weeks after the calendar month in which the MMEL or MDEL violation occurred. The calendar month of the violation and the calendar month of the additional routine monitoring shall be considered “successive calendar months” for purposes of determining whether a TRE is required under section 5.2.2, below. This additional routine monitoring test is used to determine if a TRE is necessary. This additional routine monitoring test is also used for compliance purposes and could result in the need to conduct MMEL compliance tests.

5.1.9. **Compliance Monitoring Requirements.** If a chronic aquatic toxicity routine monitoring test results in a “fail” at the IWC, then the Permittee shall complete a maximum of two MMEL compliance tests. The MMEL compliance tests shall be initiated within the same calendar month that the first routine monitoring test was initiated that resulted in the “fail” at the IWC. If the first chronic MMEL compliance tests results in a “fail” at the IWC, then the second MMEL compliance test is waived because the first chronic MMEL compliance test that results in a “fail” constitutes a violation and so the second MMEL compliance test is not required.

5.1.10. **Other Requirements.**

5.1.10.1. When a required toxicity test for routine monitoring or MMEL compliance tests is not completed, a new toxicity test to replace the toxicity test that was not completed shall be initiated as soon as possible. The new toxicity test shall replace the routine monitoring or MMEL compliance tests, as applicable, for the calendar month in which the toxicity test that was not completed was required to be initiated, even if the new toxicity test is

initiated in a subsequent month. The new toxicity test for routine monitoring or MMEL compliance tests, as applicable, and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall be used to determine compliance with the effluent limitations for the calendar month in which the toxicity test that was not completed and was required to be initiated. The new toxicity test and any MMEL compliance tests required to be conducted due to the results of the new toxicity test shall not be used to substitute for any other required toxicity tests.

When any monitoring test is not initiated in the required time period due to circumstances outside of the Permittee's control that were not preventable with the reasonable exercise of care, and the Permittee promptly initiates, and ultimately completes a replacement test, the Regional Water Board may determine that the replacement monitoring test was not required to be initiated in the required time period.

5.1.10.2. When there is no effluent available to complete a routine monitoring test or MMEL compliance test, the test shall not be required, and routine monitoring continues at the frequency specified in the permit.

5.1.11. **Reporting.** Results obtained from toxicity tests shall be reported to the Regional Water Board in the Permittee's quarterly Self-Monitoring Report (SMR), as either a "pass" or a "fail," and the percent effect at the IWC for each endpoint. The SMR shall include a full laboratory report for each toxicity test that was performed (WET report).

5.1.11.1. WET reports shall include the contracting laboratory's complete report provided to the Permittee and shall be consistent with the appropriate "Report Preparation and Test Review" sections of the methods manual and this MRP. The WET test reports shall contain a narrative report that includes details about WET test procedures and results, including the following:

5.1.11.1.1. Receipt and handling of the effluent sample that includes a tabular summary of initial water quality characteristics (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia);

5.1.11.1.2. Any manipulations done to lab control/diluent and effluent such as filtration, nutrient addition, etc.;

5.1.11.1.3. Tabular summary of test results for control water and each effluent dilution;

5.1.11.1.4. The toxicity test results reported as either a "Pass" or "Fail", and the "Percent Effect" at the IWC for each endpoint;

5.1.11.1.5. Identification of any anomalies or nuances in the test procedures or results.

5.1.12. **Notification.** All toxicity tests at the IWC shall be used for determining compliance with any toxicity MDEL or MMEL contained in this Order. The Permittee shall notify the Regional Water Board of a violation of a toxicity MDEL or MMEL as soon as the discharger learns of the violation, but no later than 24 hours of the discharger receiving the monitoring results.

5.2. **Toxicity Reduction Evaluation (TRE) Process**

5.2.1. **Generic TRE Work Plan.** The Permittee shall prepare and submit to the Regional Water Board Executive Officer a TRE workplan **within 180 days of the effective date of this Order.** This plan shall be reviewed and updated as necessary in order to remain current and applicable to the discharge and discharge facilities. The workplan shall describe the steps the Permittee intends to follow if toxicity is detected, and should include at a minimum the following items:

5.2.1.1. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.

5.2.1.2. A description of the facility's methods of maximizing in-house treatment efficiency, good housekeeping practices, and a list of all chemicals used in the operation of this Facility.

5.2.1.3. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

5.2.2. **TRE Work Plan.** A TRE Work Plan is required to be submitted and implemented when a Permittee does not meet any combination of two or more MDEL or MMEL within a single calendar month or within two successive calendar months. In addition, if other information indicates toxicity (e.g., results of additional monitoring, results of monitoring at a higher concentration than the IWC, fish kills, intermittent recurring toxicity), then the Regional Water Board may also require a TRE. A TRE may also be required when there is no effluent available to complete a routine monitoring test or MMEL test. Routine Monitoring shall continue during a TRE.

The TRE Work Plan shall be submitted for Regional Water Board approval within 30 days from receipt of the chronic toxicity monitoring result, or other toxicity event, that initiated the TRE requirement. The TRE Work Plan shall follow the generic TRE Work Plan and be revised as appropriate for the initiating toxicity events.

The TRE shall be conducted according to the EPA manual Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations

(EPA/600/2-88/070, 1989). The TRE Work Plan shall include the following information, and comply with additional conditions set by the Regional Water Board Executive Officer:

5.2.2.1. Further actions by the Permittee to investigate, identify, and correct causes of toxicity.

5.2.2.2. Actions the Permittee will take to mitigate effects of the discharge and prevent the recurrence of toxicity.

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

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

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

5.2.5. The Regional Water Board recognizes that toxicity may be episodic and identification of the causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

6. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

This Order does not authorize discharges to land.

7. RECYCLING MONITORING REQUIREMENTS

The Permittee shall monitor use area(s) at a frequency appropriate to determine compliance with this Order and the Permittee's recycled water use program

requirements. The Permittee may assign monitoring responsibilities to a recycled water user as part of its Water Recycling Use Permit program, however, the Permittee retains responsibility to ensure the data is collected, as well as prepare and submit the annual report.

7.1. Monitoring Location REC-001

7.1.1. When the recycled water system is in use, the Permittee shall monitor treated, disinfected wastewater prior to recycling use at Monitoring Location REC-001 as follows:

Table E-6. Recycled Water Monitoring Requirements – Monitoring Location REC-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow[1]	mgd	Meter	Continuous	--
pH	s.u.	Grab	Weekly[4,5]	Standard Methods[2]
Nitrate Nitrogen, Total (as N)[3]	mg/L	Grab	Monthly[4]	Standard Methods[2]
Nitrite Nitrogen, Total (as N)[3]	mg/L	Grab	Monthly	Standard Methods[2]
Ammonia Nitrogen, Total (as N)[3]	mg/L	Grab	Monthly[5]	Standard Methods[2]
Organic Nitrogen[3]	mg/L	Grab	Monthly	Standard Methods[2]
Total Dissolved Solids (TDS)	mg/L	Grab	Monthly[4]	Standard Methods[2]
Sodium	mg/L	Grab	Monthly	Standard Methods[2]

Table Notes:

1. Each quarter, the Permittee shall report the number of days that treated wastewater was recycled at all authorized recycled water sites, as well as the average and maximum daily flow rate.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).

3. Monitoring for nitrate, nitrite, ammonia and organic nitrogen is for the purpose of determining total nitrogen concentration for agronomic rate calculations.
4. Accelerated monitoring (weekly and monthly). If a test result exceeds an effluent limitation, the Permittee shall take two additional samples, one within 7 days and one within 14 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the cause of the exceedance and take steps needed to return to compliance.

7.2. Recycled Water Use Area Monitoring

7.2.1. Recycled water quality characteristics and precipitation data shall be used to ascertain nitrogen loading rates at each recycled water use site.

7.2.2. The frequency of use area inspections shall be based on the complexity and risk of each use area.

7.2.3. Reporting of the required monitoring shall be provided annually in the Annual Recycled Water Report to the Regional Water Board, and annually to recycled water users.

7.2.4. Use area monitoring shall include the following parameters:

Table E-7. Recycled Water Production and Use

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Recycled Water User	---	---	---	Annually
Volume of recycled water[1]	gpd[2]	Meter[3]	Daily	Annually
Total area of application	Acres	Observation	Monthly	Annually
Application Rate	Inches/ acre/year	Calculation	---	Annually
Total Nitrogen application rate[4, 5]	lbs/acre /year	Calculation	Monthly	Annually
Rainfall	Inches	Gauge	Monthly	Annually
Notification Signs[6]	---	Observation	Monthly	Annually
Visual Observations[7]	---	Observation	Monthly/Daily	Annually

Table Notes:

1. Estimation of the volume of recycled water shall not include other potable or non-potable “make-up” water used in conjunction with recycled water.
2. gpd denotes gallons per day.
3. Meter requires meter reading, a pump run time meter, or other approved method.

4. Nitrogen application rate shall consider nutrients contained in the recycled water, based on analytical data obtained by the Permittee.
5. Nitrogen concentrations shall be calculated and reported "as N".
6. Notification signs shall be consistent with the requirements of California Code of Regulations, title 22, section 60310(g).
7. During periods of discharge to the irrigation system, visual observations shall be conducted at least monthly for agronomic applications and daily during periods of frost protection to verify compliance with recycled water requirements in Attachment I and shall confirm proper operation of the recycled water system and associated best management practices (BMPs) and include a record of any malfunctions or findings of improper operation, including, but not limited to soil saturation/ponding, nuisance odors, nuisance vectors, evidence of surface run-off, discharge off-site, or ponding that exceeds 24-hours. Visual observations may be performed by the irrigation users in accordance with the Permittee's user agreements. Reporting shall include the daily volume of treated wastewater discharged to the irrigation system and any observations indicating non-compliance with the provisions of the waste discharge requirements.

7.3. Dual Plumbed Recycled Water Systems

7.3.1. If dual plumbed recycled water systems are proposed, the Permittee shall consult with DDW staff for additional reporting, design, and operation requirements. The frequency of testing or cross connection and backflow prevention devices shall be as listed below or more frequently, if specified by DDW.

Table E-8. Dual Pumped Recycled Water System Requirements

Requirement	Frequency	Reporting Frequency
Cross connection testing	Four Years[1]	30 days/Annually[2]
Backflow Incident	--	24 hours from discovery
Backflow Prevention Device Testing and Maintenance	Annually[3]	Annually

Table Notes:

1. Testing shall be performed at least every four years, or more frequently at the discretion of the State Water Board Division of Drinking Water.
2. Cross connection testing shall be reported pursuant to CCR, title 22, section 60314. The report shall be submitted to the State Water Board Division of Drinking Water within 30 days and included in the annual report to the Regional Water Board.
3. Backflow prevention device maintenance shall be tested by a qualified person as described in CCR, title 17, section 7605.

8. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

8.1. Monitoring Location RSW-001 and RSW-002

8.1.1. The Permittee shall monitor Jones Creek at Monitoring Locations RSW 001 and RSW 002 during periods of discharge as follows:

Table E-9. Receiving Water Monitoring Requirements – Monitoring Location RSW-001 and RSW-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow[1]	mgd	Gage[1]	Daily	--
pH	s.u.	Grab	Weekly[2,9]	Standard Methods[3]
Hardness, Total (as $CaCO_3$)[4]	mg/L	Grab	Monthly	Standard Methods[3]
Temperature	°F or °C	Grab	Weekly[2]	Standard Methods[3]
Turbidity	NTU	Grab	Weekly	Standard Methods[3]
Dissolved Oxygen	mg/L	Grab	Weekly	Standard Methods[3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly[2]	Standard Methods[3]
Unionized Ammonia (as N)	mg/L	Calculate	Monthly	Standard Methods[3]
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods[3]
Phosphorus, Total (as P)	mg/L	Grab	Monthly	Standard Methods[3]
CTR Priority Pollutants[4,5]	µg/L	Grab	Once per permit term[7]	Standard Methods[3,6]
E. coli Bacteria[8]	MPN/100 mL	Grab	Monthly	Standard Methods[3]

Table Notes:

1. Based on flow readings in Jones Creek at an approved location.
2. pH and temperature monitoring must coincide with monthly receiving water monitoring for ammonia.

3. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board, such as with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration).
4. Monitoring shall occur only at Monitoring Location RSW-001.
5. Those pollutants identified by the California Toxics Rule at 40 C.F.R. section 131.38. The Permittee is not required to sample and analyze for asbestos. Hardness shall be monitored concurrently with the priority pollutant sample. Monitoring shall occur simultaneously with effluent monitoring for CTR priority pollutants required by section 4.3 of this MRP.
6. Analytical methods must achieve the lowest minimum level (ML) specified in Appendix 4 of the SIP and, in accordance with section 2.4 of the SIP, the Permittee shall report the ML and MDL for each sample result.
7. CTR priority pollutant sampling shall be completed no later than **February 21, 2027** during a period of discharge to the Jones Creek. Effluent and receiving water monitoring shall occur concurrently.
8. The Permittee may use any *E. coli* method specified in 40 CFR 136 for compliance monitoring.

9. GROUNDWATER MONITORING

9.1. Monitoring Location MW-001, MW-002, and MW-003

9.1.1. The Permittee shall monitor groundwater at Monitoring Location MW-001, MW-002, and MW-003 during periods of discharge of recycled water at Discharge Point 003 as follows:

Table E-10. Receiving Water Monitoring Requirements – Monitoring Location MW-001, MW-002, and MW-003.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Depth to Groundwater	0.1 feet	Measurement	Quarterly	--
Groundwater Elevation	0.1 feet MSL	Measurement	Quarterly	--
Nitrate (as N)	mg/L	Grab	Quarterly	Standard Methods[1]
Nitrite, Total (as N)	mg/L	Grab	Quarterly	Standard Methods[1]
Nitrogen, Total (as N)[2]	mg/L	Grab	Quarterly	Standard Methods[1]
Total Dissolved Solids	mg/L	Grab	Quarterly	Standard Methods[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Boron	mg/L	Grab	Quarterly	Standard Methods[1]
Sodium	mg/L	Grab	Quarterly	Standard Methods[1]

Table Notes:

1. In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 C.F.R. part 136.
2. Total nitrogen is the sum of nitrate, nitrite, ammonia, and organic nitrogen.

10. OTHER MONITORING REQUIREMENTS

10.1. Filtration Process Monitoring (Monitoring Locations INT-001A and INT-001B)

Filtration process monitoring shall demonstrate compliance with section 4.6.1 (Filtration Process Requirements) of this Order and applies to all treated wastewater flows. The following filtration process monitoring shall be implemented:

10.1.1. Effluent Filter Monitoring (Monitoring Location INT-001A)

10.1.1.1. **Monitoring**. The Permittee shall calculate, on a daily basis, the surface loading rate in gallons per minute per square foot, and report the maximum surface loading rate and any exceedances of the surface loading rate limitations specified in section 4.6.1.1. of the Order. The rate of flow through the tertiary filters shall be measured at Monitoring Location INT-001A.

10.1.1.2. **Compliance**. Compliance with the maximum daily filter surface loading rate, as specified in section 60301.320 of the CCR Water Recycling Criteria (title 22), shall be calculated based on the flow rate through each filter unit.

10.1.1.3. **Reporting**. The maximum daily filter surface loading rate shall be reported on the quarterly SMRs.

10.1.2. Effluent Filter Monitoring (Monitoring Location INT-001B)

10.1.2.1. **Monitoring**. The turbidity of the filtered effluent shall be continuously measured and recorded at Monitoring Location INT-001B. Should the turbidity meter and recorder fail, grab sampling at a minimum frequency of 1.2 hours may be substituted for a period of up to 24 hours. The recorded data shall be maintained by the Permittee for at least 3 years. The daily maximum and 95th percentile turbidity results shall be reported on the quarterly SMRs.

10.1.2.2. **Compliance**. Compliance with the 95th percentile effluent turbidity limitation specified in title 22, as referenced in section 4.6.1.2.1 of the Order, shall be determined using the levels of recorded turbidity taken at intervals of no more than 1.2 hours over a 24-hour period. Exceedances of the maximum turbidity requirement referenced in section 4.6.1.2.2 of this Order shall not be considered a violation of these waste discharge requirements if such exceedance does not exceed a duration of one minute.

10.1.2.3. **Reporting**. If the filtered effluent turbidity exceeds 0.2 NTU for more than 5 percent of the time in a 24-hour period or 0.5 NTU at any time, the incident shall be reported in the quarterly SMR and to the Regional Water Board and DDW by telephone within 24 hours in accordance with Provision 4.1.2.1 of this Order. A written report describing the incident and the actions undertaken in response shall be included in the quarterly SMR. Mitigation of the event shall consist of diverting all inadequately treated wastewater to temporary storage or an upstream process or automatically activated chemical addition to comply with title 22 requirements (Sections 60304 and 60307).

10.2. **Disinfection Process Monitoring for the Chlorine Disinfection System**

10.2.1. Disinfection process monitoring shall demonstrate compliance with section 4.7. (Disinfection Process Requirements for Chlorine Disinfection System) of this Order and applies to all treated wastewater flows. The following disinfection process monitoring requirements must be implemented:

10.2.2. **Monitoring Location INT-001C**

10.2.3. The Permittee shall monitor the discharge from the chlorine contact chamber prior to dechlorinating at Monitoring Location INT-001C as follows:

10.2.3.1. **Monitoring.** The chlorine residual of the effluent from the chlorine contact chamber shall be monitored continuously at a point prior to dechlorination and recorded, and the modal contact time shall be determined at the same point.

10.2.3.2. **Compliance.** The chlorine disinfection CT (the product of total chlorine residual and modal contact time) shall not fall below 450 mg-min/L, with a modal contact time of at least 90 minutes.

Each day, the Permittee shall calculate the CT values for the following conditions:

10.2.3.2.1. Modal contact time under highest daily flow and corresponding chlorine residual.

10.2.3.2.2. Modal contact time under lowest daily flow and corresponding chlorine residual.

10.2.3.2.3. Lowest chlorine residual and corresponding modal contact time.

10.2.3.2.4. Highest chlorine residual and corresponding modal contact time.

The lowest calculated CT value under the aforementioned conditions shall be reported as the daily CT value on the quarterly SMR.

10.2.4. **Reporting.** If the chlorine disinfection CT is less than 450 mg-min/L or if the chlorination equipment fails, the event shall be reported in the quarterly SMR, and the incident shall be reported to the Regional Water Board and DDW by telephone within 24 hours in accordance with Special Provision 4.1.2.2 of the Order. A written report describing the incident and the actions undertaken in response shall be included in the quarterly SMR. The report shall describe the measures taken to bring the discharge into compliance. Upon discovery of any equipment failure or failure to achieve 450 mg min/L after disinfection, inadequately treated and disinfected wastewater shall be diverted to a storage basin or an upstream process for adequate treatment.

10.3. **Visual Monitoring (Monitoring Location INT-001C, RSW-001, and RSW-002)**

10.3.1. Visual observations of the discharge and receiving water shall be recorded monthly and on the first day of each intermittent discharge. Visual monitoring shall include, but not be limited to, observations for floating materials, coloration, objectionable aquatic growths, oil and grease films, and odors. Visual observations shall be recorded and included in the Permittee's quarterly SMRs.

10.4. **Pond System Monitoring**

10.4.1. **Monitoring Locations PND-001, PND-002, etc.**

Ponds used for the storage of recycled water shall be monitored for the following:

Table E-11. Storage Pond Monitoring – Monitoring Locations PND-001, PND-002

Parameter	Units	Sample Type	Sample Frequency	Reporting Frequency
Freeboard	0.1 feet	Measurement	Weekly[1]	Annually
Odors	--	Observation	Monthly	Annually
Berm condition	--	Observation	Quarterly	Annually

Table Notes:

1. Freeboard monitoring shall occur more frequently, if needed, to ensure that the required 2-foot freeboard is maintained, and overflows are prevented.

10.4.2. The Permittee shall notify the Regional Water Board Executive Officer prior to adding recycled water storage ponds by submitting the Storage Pond Technical Report identified in 4.4.3 of the Order. Upon approval of the Storage Pond Technical Report by the Regional Water Board Executive Officer, the Permittee shall monitor for the parameters identified in 1, above.

10.5. **Sludge Monitoring (Monitoring Location BIO-001)**

10.5.1. Sludge sampling shall be conducted according to the requirements specified by the location and type of disposal activities undertaken.

10.5.2. Sampling records shall be retained for a minimum of 5 years. A log shall be maintained for sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log must be complete enough to serve as a basis for developing the Sludge Handling and Disposal report that is required as part of the Annual Report.

11. **REPORTING REQUIREMENTS**

11.1. **General Monitoring and Reporting Requirements**

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

11.2. **Self-Monitoring Reports (SMRs)**

11.2.1. The Permittee shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal. The Permittee shall maintain sufficient staffing and resources to ensure it submits eSMRs that are complete and timely. This includes provisions of training and supervision of individuals (e.g., Permittee personnel or consultant) on how to prepare and submit eSMRs.

11.2.2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 10. The Permittee shall submit quarterly SMRs including the results of all required monitoring using U.S. EPA-approved test methods or other test methods specified in this Order. SMRs are to include all new monitoring results obtained since

the last SMR was submitted. If the Permittee monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

11.2.3. All monitoring results reported shall be supported by the inclusion of the complete analytical report from the laboratory that conducted the analyses.

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

Table E-12. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	First day of second calendar month following the month of sampling
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling	First day of second calendar month following the month of sampling
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	First day of second calendar month following the month of sampling
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1st day of calendar month through last day of calendar month	First day of second calendar month following the month of sampling

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 1 April 1 through June 30 July 1 through September 30 October 1 through December 1	First day of second calendar month following the month of sampling
Annually	January 1 following (or on) permit effective date	January 1 through December 1	March 1, each year (with annual report)
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date.	January 1 through June 30 July 1 through December 1	September 1, each year March 1, each year
Once per Permit Term	Permit Effective Date	All	March 1 following the year that monitoring is completed (with annual report) with last data to be submitted at least 180 days prior to permit expiration

11.2.5. **Reporting Protocols**. The Permittee shall report with each sample result the applicable Reporting Level (RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

The Permittee shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

11.2.5.2. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words “Estimated Concentration” (may be shortened to Est. Conc.”).

The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

11.2.5.3. Sample results less than the laboratory’s MDL shall be reported as “Not Detected,” or ND.

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

11.2.6. **Self-Monitoring Reports.** The Permittee shall submit quarterly SMRs in accordance with the following requirements:

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

11.2.6.2. The Permittee shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify:

11.2.6.2.1. Facility name and address;

11.2.6.2.2. WDID number;

11.2.6.2.3. Applicable period of monitoring and reporting;

11.2.6.2.4. Violations of the WDRs (identified violations must include a description of the requirement that was violated and a description of the violation);

11.2.6.2.5. Corrective actions taken or planned; and

11.2.6.2.6. The proposed time schedule for corrective actions.

11.2.6.3. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the CIWQS Program web site (http://www.waterboards.ca.gov/ciwqs/index.html).

11.2.6.4. In the event that an alternate method for submittal of SMRs is required, the Permittee shall submit the SMR electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DVD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Water Board web site at (http://waterboards.ca.gov/northcoast).

11.2.6.5. At any time during the term of this permit, the Regional Water Board may notify the Permittee to electronically submit both technical and Self-Monitoring Reports (SMRs) to the State Water Board's GeoTracker database in searchable Portable Document Format (pdf). In addition, analytical data will be required to be uploaded to the GeoTracker database under a site-specific global identification number that will be assigned to the Permittee. Information on the GeoTracker database is provided on the State Water Board's website at: (https://www.waterboards.ca.gov/resources/data_databases/groundwater.shtml)

11.3. **Discharge Monitoring Reports (DMRs)**

11.3.1. DMRs are U.S. EPA reporting requirements. The Permittee shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. DMRs shall be submitted quarterly on the first day of the second calendar month following the end of each quarter (February 1, May 1, August 1, November 1).Information about electronic DMR submittal is available at the DMR website: (http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring).

11.4. **Other Reports**

11.4.1. **Special Study Reports and Progress Reports.** As specified in the Special Provisions contained in section 6.3. of the Order, special study and progress reports shall be submitted in accordance with the following reporting requirements.

11.4.2. **Disaster Preparedness Assessment Report and Action Plan.** Natural disasters, extreme weather events, sea level rise, and shifting precipitation patterns, some of which are projected to intensify due to climate change, have significant implications for wastewater treatment

and operations. Some natural disasters are expected to become more frequent and extreme according to the current science on climate change. In order to ensure that Facility operations are not disrupted, compliance with conditions of this Order are achieved, and receiving waters are not adversely impacted by permitted and unpermitted discharges, the Permittee shall submit a Disaster Preparedness Assessment Report and Action Plan to the Regional Water Board by **November 1, 2025**, for Executive Officer review and approval.

11.4.2.1. The Permittee shall:

11.4.2.1.1. Conduct an assessment of the wastewater treatment facility, operations, collection, and discharge systems (including the discharge outfall) to determine areas of short- and long-term vulnerabilities related to natural disasters and extreme weather, including sea level rise and other conditions projected by climate change science, if applicable; the assessment shall consider, as applicable, impacts to facility operations due to changing influent and receiving water quality, rising sea level, storm surges, fires, floods, earthquakes, tsunamis, back-to-back severe storms, and other extreme conditions that pose a risk to facility operations and water quality;

11.4.2.1.2. Identify control measures needed to protect, improve, and maintain wastewater infrastructure, waste discharge compliance, and receiving water quality in the event of a natural disaster or, if applicable, under conditions resulting from climate change;

11.4.2.1.3. Develop a schedule to implement necessary control measures. Control measures shall include, but are not limited to, emergency procedures, contingency plans, alarm/notification systems, training, backup power and equipment, and the need for planned mitigations to ameliorate potential risks associated with extreme weather events and changing conditions resulting from climate change; and

11.4.2.2. Implement the necessary control measures per the approved schedule of implementation.

11.4.3. **Pathogen Special Study**. The Permittee shall conduct a study to assess the Facility's ability to comply with the bacteria water quality objective in Section 5.1.21 of the Order. By **December 1, 2025**, the Permittee shall submit, for Regional Water Board Executive Officer approval, a work plan for conducting the study. A final report summarizing the results of the Pathogen Special Study describing the Permittee's ability to comply with the bacteria water quality objective, and, if necessary, a plan and schedule for achieving compliance with the bacteria water quality

objective shall be submitted to the Regional Water Board in conjunction with the ROWD by **May 31, 2028**. If monitoring demonstrates that the Permittee cannot comply with the bacteria water quality objective, the plan of compliance shall identify any other studies necessary to demonstrate compliance with the bacteria water quality objective (i.e., study to determine whether the discharge includes pathogens of human origin).

11.4.4. **Salts Special Study.**

The Discharger shall assess the potential for the discharge of tertiary treated recycled water to impact groundwater and to exceed the groundwater limitations set forth in section 5.2 of this Order. At a minimum, the Special Study must include a work plan that includes work tasks and milestones to complete the evaluation, and a final report that presents the results and conclusions of the evaluation. The evaluation shall be informed by the quarterly results for influent and effluent samples required in sections 3 and 9 of Attachment E (MRP). The final report shall also include the results of hydraulic conductivity testing of soils below the ponds to determine the rate of infiltration.

The Discharger shall submit the final report with either:

11.4.4.1. Appropriate technical information supporting a demonstration that discharge at existing TDS and sodium effluent concentrations will not cause or contribute to violations of the Groundwater Limitations of this Order. Upon Executive Officer written concurrence with the demonstration, this provision shall be considered satisfied.

11.4.4.2. If technical information supporting a demonstration that recycled water discharge causes or contributes to violations of the Groundwater Limitations of this Order, the Order may be reopened to consider, as appropriate, the addition of new effluent limitations for total TDS and/or sodium in section 4.5 of this Order, or

11.4.4.2.1. A proposed TDS and/or sodium effluent limitation and appropriate technical information supporting a demonstration that discharge at the proposed limitation will not cause or contribute to violations of the Groundwater Limitations of this Order. The proposed effluent limitations and technical information shall also be accompanied by a work plan and time schedule describing measures the Permittee will implement to comply with the proposed limitation. Upon Executive Officer written approval concurrent with the results, the Order may be reopened for consideration of the proposed limitation.

The work plan for the Special Study shall be submitted to the Regional Water Board Executive Officer for approval **within 18 months after Order**

adoption. The Discharger shall implement the approved work plan per the schedule of implementation and, if applicable, per the compliance schedule set forth in the final report to bring the discharge into compliance with the proposed effluent limitations.

Table E-13. Reporting Requirements for Special Provisions Reports

Order Section	Special Provision Requirement	Reporting Requirement
Special Provision 6.3.2.1	Pollutant Minimization Program	If required by the Regional Water Board Executive Officer
Special Provision 6.3.2.2.5	Pollutant Minimization Program, Annual Facility Report	**March 1**, annually, following development of Pollutant Minimization Program
Special Provision 6.3.4.2	Source Control Provisions, Annual Report	**March 1**, annually
Special Provision 6.3.4.6	Adequate Capacity, Technical Report	**Within 120 days** of notification that the Facility will reach capacity within 4 years
MRP General Monitoring Provision 1.6	DMR-QA Study Report	**Annually**, per State Water Board instructions
MRP Whole Effluent Toxicity Testing Requirements 5.1.6	Species Sensitivity Screening	**Within 18 months** of this Order's adoption
MRP Effluent Monitoring Requirement 5.1.12	Verbal and written notification of chronic toxicity fail result	**Within 24 hours** after receipt of a fail result.
MRP Effluent Monitoring Requirement 5.2.1	Generic TRE Work Plan review and update	Review by **July 1, 2024** Update as necessary
MRP Effluent Monitoring Requirement 5.2.2	TRE Workplan	**No later than 30 days** receipt of the chronic toxicity monitoring result, or other toxicity event, that initiated the TRE requirement.
MRP Reporting Requirement 11.4.2	Disaster Preparedness Assessment Report and Action Plan	**November 1, 2025**
MRP Reporting Requirement 11.4.3	Pathogen Special Study Work Plan	**December 1, 2025**
MRP Reporting Requirement 11.4.3	Pathogen Special Study	**August 1, 2027**

Order Section	Special Provision Requirement	Reporting Requirement
MRP Reporting Requirement 11.4.4	Salts Special Study Work Plan	**18 months after Order adoption**
MRP Reporting Requirement 11.5.	Annual Report	**March 1**, annually
MRP Reporting Requirement 11.6.	Annual Volumetric Report	**April 30**, annually
MRP Reporting Requirement 11.7.1.	Notification of spills and unauthorized discharges.	Oral reporting **within 24** hours and written report **within 5 days**

11.5. **Annual Report.**

The Permittee shall submit an annual report to the Regional Water Board for each calendar year through the CIWQS Program Web site. In the event that a paper copy of the annual report is required, the Permittee shall submit the report to the email address in section 11.2.6.4., above. The report shall be submitted by March 1st of the following year. The report shall, at a minimum, include the following:

11.5.1. Where appropriate, tabular and/or graphical summaries of the monitoring data and disposal records from the previous year. If the Permittee monitors any pollutant more frequently than required by this Order, using test procedures approved under 40 C.F.R. part 136 or as specified in this Order, the results of this monitoring shall be included in the calculation and report of the data submitted in the SMR.

11.5.2. A comprehensive discussion of the Facility's compliance (or lack thereof) with all effluent limitations and other WDRs, and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the Order.

11.5.3. The names and general responsibilities of all persons employed at the Facility;

11.5.4. The names and telephone numbers of persons to contact regarding the Facility for emergency and routine situations; and

11.5.5. A statement certifying when the flow meter(s) and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration.

11.5.6. **Source Control Activity Reporting.** The Permittee shall submit, as part of its Annual Report to the Regional Water Board, a description of the Permittee's source control activities, as required by Special Provision

6.3.5.2, during the past year. This annual report is due on March 1st of each year, and shall contain:

11.5.6.1. A copy of the source control standards, including a table presenting local limits.

11.5.6.2. A description of the waste hauler permit system; if applicable.

11.5.6.3. A summary of the compliance and enforcement activities taken by the Permittee during the past year, which ensures industrial user compliance. The summary shall include the names and addresses of any industrial or commercial users under surveillance by the Permittee, an explanation of whether they were inspected, sampled, or both, the frequency of these activities at each user, and the conclusions or results from the inspection or sampling of each user.

11.5.6.4. An updated list of industrial users (by North American Industrial Classification/Standard Industrial Classification categories) which were issued permits and/or enforcement orders, and a status of compliance for each user.

11.5.6.5. The name and address of each user that received a discharge limit.

11.5.6.6. A summary of any industrial waste survey results.

11.5.6.7. A summary of public outreach activities to educate industrial, commercial, and residential users about the importance of preventing discharges of industrial and toxic wastes to the Facility.

11.5.7. **Sludge Handling and Disposal Activity Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, a description of the Permittee's solids handling, disposal and reuse activities over the previous 12 months. At a minimum, the report shall contain:

11.5.7.1. Annual sludge production, in dry tons and percent solids;

11.5.7.2. Sludge monitoring results;

11.5.7.3. A schematic diagram showing sludge handling facilities (e.g., digesters, thickeners, drying beds, etc.), if any and a solids flow diagram;

11.5.7.4. Methods of final disposal of sludge:

11.5.7.4.1. For any portion of sludge discharged to a sanitary landfill, the Permittee shall provide the volume of sludge transported to the landfill, the names and locations of the facilities receiving sludge,

the Regional Water Board's WDRs Order number for the regulated landfill, and the landfill classification.

11.5.7.4.2. For any portion of sludge discharged through land application, the Permittee shall provide the volume of biosolids applied, the date and locations where biosolids were applied, the Regional Water Board's WDRs Order number for the regulated discharge, a demonstration that the discharge was conducted in compliance with applicable permits and regulations, and, if applicable, corrective actions taken or planned to bring the discharge into compliance with WDRs.

11.5.7.4.3. For any portion of sludge further treated through composting, the Permittee shall provide a summary of the composting process, the volume of sludge composted, and a demonstration and signed certification statement that the composting process and final product met all requirements for Class A biosolids.

11.5.7.5. Results of internal or external third-party audits of the Biosolids Management System, including reported program deficiencies and recommendations, required corrective actions, and a schedule to complete corrective actions.

11.5.8. **Storm Water Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, an evaluation of the effectiveness of the Permittee's best management practices (BMPs) to control the run-on of storm water to the Facility site, as well as activities to maintain and upgrade these BMPs.

11.5.9. **Recycled Water Pipe Identification.** The Permittee shall document compliance with California Health and Safety Code section 116815 regarding the installation and marking of recycled water piping.

11.6. **Annual Volumetric Reporting.**

11.6.1. The Permittee shall electronically certify and submit an annual volumetric report, containing monthly data in electronic format, to State Water Board's GeoTracker system by April 30 of the following year. Required data shall be submitted to the GeoTracker database under a site-specific global identification number. The Permittee shall report in accordance with each of the items in Section 3 of the Policy for Water Quality Control for Recycled Water (Recycled Water Policy as described below:

11.6.2. **Influent.** Monthly volume of wastewater collected and treated by the Facility.

11.6.3. **Production.** Monthly volume of waster treated, specifying level of treatment.

11.6.4. **Discharge.** Monthly volume of treated wastewater discharged to each of the following, specifying level of treatment:

11.6.4.1. Inland surface waters, specifying volume required to maintain minimum instream flow, if any; and

11.6.4.2. Land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

11.6.5. **Reuse.**

11.6.5.1. Monthly Volume of treated wastewater distributed.

11.6.5.2. Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22 in each of the use categories listed below:

11.6.5.2.1. Agricultural irrigation: pasture or crop irrigation.

11.6.5.2.2. Landscape irrigation: irrigation of parks, greenbelts, and playgrounds; school yards; athletic fields; cemeteries; residential landscaping, common areas; commercial landscaping; industrial landscaping; and freeway, highway, and street landscaping.

11.6.5.2.3. Golf course irrigation: irrigation of golf courses, including water used to maintain aesthetic impoundments within golf courses.

11.6.5.2.4. Commercial application: commercial facilities, business use (such as laundries and office buildings), car washes, retail nurseries, and appurtenant landscaping that is not separately metered.

11.6.5.2.5. Industrial application: manufacturing facilities, cooling towers, process water, and appurtenant landscaping that is not separately metered.

11.6.5.2.6. Geothermal energy production: augmentation of geothermal fields.

11.6.5.2.7. Other non-potable uses: including but not limited to dust control, flushing sewers, fire protection, fill stations, snow making, and recreational impoundments.

11.6.6. **Water Recycling System Annual Report**

The Permittee shall submit a Water Recycling System annual report to the Regional Water Board for each calendar year through the CIWQS Program Web site. In the event that an alternate method for submittal of the annual

report is required, the Permittee shall submit the report electronically to the email address in section 11.2.6, above. The report shall be submitted by **March 1st** of the following year. The report shall, at a minimum, include the following:

11.6.6.1. Use site names;

11.6.6.2. Locations of recycled water use sites, including a map. Newly permitted recycled water users and use areas shall be clearly identified and, when applicable, supplement to the title 22 Engineering Report and the State Water Board Division of Drinking Water approval letter supporting those additions shall be included;

11.6.6.3. Name and contact information for the recycled water operator responsible for the operation, maintenance, and system monitoring;

11.6.6.4. Use site acreage; and

11.6.6.5. Total volume of recycled water supplied to each recycled water use site for each month of the reporting period.

11.6.7. A summary of recycled water use site inspections conducted by the Permittee or recycled water users and identification of recycled water user violations, including:

11.6.7.1. Inspection dates;

11.6.7.2. All observations of recycled water over-application and/or runoff;

11.6.7.3. Misuses of recycled water;

11.6.7.4. The number and location of any cross-connections and/or improper backflow prevention devices; and

11.6.7.5. Any other violations of the Master Recycling Permit or the Permittee's rules and regulations.

11.6.7.6. If violations occurred, the report shall also discuss the corrective actions taken and planned to bring the recycled water program into full compliance with this Order.

11.6.8. An evaluation of the performance of the recycled water treatment facility, including discussion of capacity issues, system problems, and a forecast of the flows anticipated in the next year.

11.6.9. An evaluation verifying that the application of recycled water to each use area occurred at reasonable agronomic rates identified in the Irrigation Operation and Management Plan required by section 2.3.4. of

Attachment I and utilizing the data required by Table E-7 of the MRP. If the agronomic rate evaluation determines that exceedances of the agronomic rate may be occurring, the Permittee shall identify and implement corrective actions to ensure recycled water use occurs at reasonable agronomic rates.

11.6.10. Certification that all reasonable BMPs and management practices were implemented to ensure efficient and compliant operation of the recycled water system; and

11.6.11. Identification of any other problems that occurred in the recycled water system during the prior year and plans to rectify those problems in the coming year.

11.6.12. A summary of all enforcement activities initiated by the Permittee, including a discussion of corrective action taken, as well as any planned or proposed actions needed to bring the use of recycled water into compliance with the requirements of this Order. Copies of documentation of any enforcement actions taken by the Permittee shall be provided.

11.6.13. A summary of operational problems, plant equipment malfunctions, and any diversion of recycled water which does not meet the requirements specified in this Order.

11.6.14. Documentation of notifications to users if any recycled water was delivered that did not meet the requirements specified in this Order.

11.6.15. A record of equipment or process failures initiating an alarm, as well as any corrective and preventative actions.

11.6.16. A summary of scheduled and non-scheduled maintenance of the recycled water system appurtenances and irrigation areas;

11.6.17. Enforcement and monitoring activities that occurred during the previous year, and identification of any problems and how the problems were addressed; and

11.6.18. If applicable, a summary of all cross-connection testing and back-flow prevention activities (inspections, maintenance) and a summary of any problems identified, or certification that no problems occurred.

11.6.19. The name and contact information for the recycled water operator responsible for operation, maintenance, and system monitoring.

11.6.20. A transmittal letter shall accompany each annual report. The letter shall summarize the numbers and severity of violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the

following penalty of perjury statement and shall be signed by the Permittee's authorized agent:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

11.7. **Spill Notification**

11.7.1. **Spills and Unauthorized Discharges.** Information regarding all spills and unauthorized discharges (except SSOs) that may endanger health, or the environment shall be provided orally to the Regional Water Board **within 24 hours** from the time the Permittee becomes aware of the circumstances and a written report shall also be provided **within five days** of the time the Permittee becomes aware of the circumstances, in accordance with section 5.5 of Attachment D.

The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, spill reporting to the California Governor's Office of Emergency Services Warning Center (CalOES) will satisfy the 24-hour spill reporting requirement for the Regional Water Board. The contact number for spill reporting for the CalOES is (800) 852-7550.

Information to be provided verbally to the Regional Water Board includes:

11.7.1.1. Name and contact information of caller;

11.7.1.2. Date, time, and location of spill occurrence;

11.7.1.3. Estimates of spill volume, rate of flow, and spill duration, if available and reasonably accurate;

11.7.1.4. Surface water bodies impacted, if any;

11.7.1.5. Cause of spill, if known at the time of the notification;

11.7.1.6. Cleanup actions taken or repairs made at the time of the notification; and

11.7.1.7. Responding agencies.

11.7.2. **Sanitary Sewer Overflows.** Notification and reporting of sanitary sewer overflows are conducted in accordance with the requirements of Order No. 2022-0103-DWQ (Statewide General WDRs for Sanitary Sewer

Systems), which is not incorporated herein by reference, and any revisions thereto.

11.7.3. **Recycled Water Spills.** Notification and reporting of spills and unauthorized discharges of recycled water discharged in or on any waters of the state, as defined in Water Code section 13050, shall be conducted in accordance with the following:

11.7.3.1. **Tertiary Recycled Water**

11.7.3.1.1. Tertiary Recycled Water means “disinfected tertiary 2.2 recycled water” as defined by DDW or wastewater receiving advanced treatment beyond disinfected tertiary 2.2 recycled water.

11.7.3.1.2. For unauthorized discharges of 50,000 gallons or more of tertiary recycled water, the Permittee shall immediately notify the Regional Water Board as soon as (a) the Permittee has knowledge of the discharge or probable discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures.

11.7.3.1.3. For unauthorized discharges of more than 1,000 gallons, but less than 50,000 gallons of tertiary recycled water, the Permittee shall notify the Regional Water Board as soon as possible, but no longer than 3 days after becoming aware of the discharge.

ATTACHMENT F - FACT SHEET

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ATTACHMENT F - FACT SHEET

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

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

1. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	1B83100OSON
Permittee	Forestville Water District
Name of Facility	Forestville Water District Wastewater Treatment, Recycling, and Disposal Facility
Facility Address	6194 Forestville Street, Forestville CA, 95436, Sonoma County
Facility Contact, Title and Phone	Tony Lopes, General Manager, (707) 887-1551
Authorized Person to Sign and Submit Reports	Tony Lopes, General Manager, (707) 887-1551
Mailing Address	P.O. Box 261, Forestville, CA 95436
Billing Address	Same as Mailing Address
Type of Facility	Publicly Owned Treatment Works (POTW)
Major or Minor Facility	Minor
Threat to Water Quality	1
Complexity	B
Pretreatment Program	Not Applicable
Recycling Requirements	Producer
Facility Permitted Flow	0.130 million gallons per day (mgd) (average dry weather flow) 0.576 mgd (peak weekly wet weather flow)

Facility Design Flow	0.130 mgd (average dry weather design flow) 0.576 mgd (peak weekly wet weather design flow) 0.780 mgd (peak daily wet weather design flow)
Watershed	Russian River Hydrologic Unit, Guerneville Hydrologic Subarea
Receiving Water	Jones Creek
Receiving Water Type	Inland surface water

1.1. The Forestville Water District (hereinafter Permittee) is the owner and operator of the Forestville Water District Wastewater Treatment, Recycling and Disposal Facility (hereinafter Facility), a POTW. For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

1.2. The Facility discharges tertiary treated wastewater to Jones Creek, a water of the United States. The Permittee was previously regulated by Order No. R1-2018-0002 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0023043 adopted on July 11, 2018 and expired on August 31, 2023. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

1.3. The Permittee filed a report of waste discharge (ROWD) and submitted an application for reissuance of its WDRs and NPDES permit on February 28, 2023. The application was deemed complete on March 1, 2023.

1.4. Regulations at 40 C.F.R. section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. However, pursuant to California Code of Regulations, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Permittee complies with all federal NPDES requirements for continuation of expired permits. Order No. R1-2018-0002 was administratively extended pursuant to these regulations.

2. FACILITY DESCRIPTION

The Permittee owns and operates a wastewater treatment, recycling, and disposal facility which provides sewerage services 384 connections, serving a population of approximately 930, including residential, commercial, and institutional customers in the Forestville and Mirabel Heights Zone of Benefit (Mirabel Heights) area. There are no industrial users that discharge into the Facility. The Permittee's wastewater makeup is approximately 65 percent residential flow, 21 percent commercial flow, and 14 percent institutional flow. The institutional portion reflects two schools, which serve larger populations than live within the Permittee's service area.

2.1. Description of Wastewater and Biosolids Treatment and Controls

The Facility is located within the Guerneville Hydrologic Subarea of the Lower Russian River Hydrologic Area, within the Russian River Hydrologic Unit. The Facility is designed to provide advanced wastewater treatment for an average dry weather flow of 0.130 mgd, and a peak weekly wet weather flow of 0.576 mgd.

2.1.1. Collection System

The Forestville collection system is comprised of two interconnected areas: Forestville Central and Mirabel Heights. The Forestville Central portion of the collection system is entirely gravity flow and consists of 6.5 miles of 6- and 8-inch pipe that was slip-lined with plastic lining between the late 1970's and early 1980's.

The Mirabel Heights portion consists of predominantly 6-inch PVC pipe with a small percentage of 8" PVC pipe and is serviced by two lift stations. Terminal Lift Station is located at the intersection of River and Mirabel Roads and has two submersible pumps, one 5 horsepower (HP) and one 10HP. The lift station pumps wastewater through a 4-inch force main that extends 1,533 feet to a manhole located on Trenton Road, then flows by gravity to the second lift station known as Intermediate Lift Station. Terminal Lift Station services most of Mirabel Heights' gravity sewer collection system. In addition, Steelhead Beach County Park maintains its own lift station that pumps wastewater to the gravity portion of the River Road 8-inch gravity main. Intermediate Lift Station is located on Trenton Road near the terminus of Covey Road and receives wastewater from Terminal Lift Station and a small portion of the gravity sewer system. Intermediate Lift Station has two 23HP high speed/high head pumps and pumps wastewater through 6,099 feet of 6-inch DI force main under Covey Road to the gravity sewer main at Van Keppel Road. Wastewater is pumped vertically approximately 220 feet at its highest point in the collection system.

2.1.2. Wastewater Treatment

The treatment system consists of a headworks, an aeration pond (also known as the South Pond), a settling pond (also known as the North Pond), microfiltration, chlorine disinfection with sodium hypochlorite and dechlorination with sodium bisulfite. Treated wastewater is discharged to an approximately 3.25-million-gallon effluent storage pond used for storage of advanced treated wastewater prior to discharge to Jones Creek or the recycled water system.

The headworks include a rotary hydroscreen system, a screenings washer, and a metering flume. Influent flows from a 12-inch pipeline to the rotary hydroscreen system. After solids removal, influent flows through a 3-inch

Parshall flume for flow measurement. The cleaned and dewatered solids are disposed of at a landfill.

Wastewater from the headworks flows by gravity to the east end of the aeration pond. The pond has a volumetric capacity of 2.93 million gallons, and is divided into three baffled cells to reduce short-circuiting. The first cell contains two 7.5-horsepower aerators that run continuously, the second cell contains one 5-horsepower aerator that also runs continuously, and the third cell contains a 3-horsepower aerator, set on a timer, to create aerobic and anoxic conditions within the pond. Based on the average dry weather treatment capacity, the theoretical detention time in the pond is 24.8 days. Wastewater flows from cell to cell and exists from the westernmost cell into the settling pond.

The settling pond (also known as the North Pond) is used for storage during high flows and for filter backwashes. The settling pond has a total volume of 0.75 million gallons. Wastewater from the settling pond is recirculated to the aeration pond as necessary.

Wastewater from the aeration pond is pumped to the filtration system. To maintain cleanliness in the filters, the secondary effluent is pre-chlorinated using sodium hypochlorite prior to filtration. Tertiary treatment is achieved in the microfiltration system. The microfiltration system consists of two treatment trains each with a holding tank, strainer, and three banks of 12 microza microfiltration modules (water flows from the outside-in). The microfiltration building has been designed to accommodate a third treatment train if necessary. The microfiltration system is operated in accordance with the manufacturer's operations manual and State Water Resources Control Board (State Water Board) Division of Drinking Water (DDW) requirements. Where the manufacturer's recommendations are less stringent than DDW requirements, DDW requirements take precedence.

From the microfiltration system, filtered wastewater flows to the chlorine contact tank by gravity through an 8-inch pipeline. A chlorine gas system was replaced with a sodium hypochlorite system in May 2014. Sodium hypochlorite is injected into the 8-inch influent line prior to entering the chlorine contact tank using an injection quill assembly. Sodium hypochlorite is stored in a 540-gallon tank and is conveyed to the injection point through a 1-inch line by a pair of peristaltic pumps. Two peristaltic pumps are utilized each with a rated application rate of 100 gallons per day. The dosing of sodium hypochlorite is a set rate and is not flow- or demand-paced. The chemical pump rate is manually adjusted based on the chlorine residual or the filter process flow rate.

Chlorinated effluent then flows into one of two baffled concrete chambers. A chlorine contact tank tracer study conducted in August 2005 demonstrated that the contact time is 105 minutes at the peak weekly treatment plant

design flow of 0.576 mgd, and that a final chlorine residual of 4.3 mg/L is needed to maintain a contact time of 450 mg-min/L at peak weekly design flow. The study also demonstrated that when the filter flow exceeds 0.576 mgd, up to the peak wet weather daily design flow of 0.780 mgd, a final chlorine residual of 5.3 mg/L is needed to maintain a contact time of 450 mg-min/L. After flowing through the chlorine contact tank, before discharge to the effluent storage pond, the chlorinated effluent is dechlorinated using sodium bisulfite.

After treatment, the advanced treated effluent is discharged to an on-site effluent storage pond prior to discharge to the recycled water system or the surface water discharge system. The maximum capacity of the existing on-site storage pond is 3.25 million gallons. Additional on-site storage capacity may also be available within the treatment ponds during low flow periods. The storage ponds allow the amount of discharge to be controlled to protect beneficial uses of the receiving water and provide a source of recycled water during the discharge prohibition period, as further described in section 2.2, below.

2.1.3. **Biosolids Management**

Biosolids generated during the treatment process accumulate in the aeration and settling ponds, where they undergo anaerobic digestion and densification. Over time, the volume of settled solids increases, reducing the retention time of flow through the pond. Facility design recommendations are that the settling pond provide a minimum of 12 hours detention time at the peak week wet weather flow, at maximum allowable water depth. Accordingly, 0.46 million gallons of settling pond capacity is available for solids accumulation. This volume is equivalent to a depth of 6.5 feet. Solids were removed from both the North and South ponds in 2012, for the first time since construction of the tertiary facilities in 2001. During the 2012 biosolids removal event, approximately 99 dry tons of solids were removed from the ponds and land applied by Synagro Technologies, Inc. At present, samples show that neither pond contains a substantial quantity of biosolids. The Permittee does not anticipate needing to remove biosolids within the term of this permit.

2.2. **Discharge Points and Receiving Waters**

2.2.1. The Facility is located within the Guerneville Hydrologic Subarea of the Lower Russian River Hydrologic Area, within the Russian River Hydrologic Unit.

2.2.2. Year-round, the Permittee discharges advanced treated wastewater to a 3.25-million-gallon effluent storage pond prior to discharge to the recycled water system or the surface water discharge system.

2.2.3. During the wet weather season (October 1 through May 14), effluent treated in accordance with permit requirements in section 4.1. of the Order, may be discharged from the on-site effluent storage pond via a one quarter mile outfall pipe to Jones Creek at Discharge Point 002. Jones Creek is a water of the United States and tributary to the Russian River via Green Valley Creek at 38° 27' 58" N latitude and 122° 53' 18" W longitude.

2.2.4. During the dry weather season (May 15 through September 30), and other periods as allowed under this Order, treated wastewater from the 3.25-million-gallon effluent storage pond is recycled for urban and agricultural irrigation, including frost control on vineyards (Discharge Point 003). The existing irrigation system includes approximately 296 acres of agricultural land with an irrigable capacity of 54 acre-feet and 18 acres of urban land with an irrigable capacity of approximately 39 acre-feet. The Permittee has written agreements with individual recycled water customers.

The advanced wastewater treatment recycled water system includes two effluent pump stations, two recycled water mains, an effluent transfer line to the Graton CSD Wastewater Treatment Facility (WWTF), an off-site storage reservoir, spray irrigation systems and accompanying appurtenances to provide advanced treated recycled water to agricultural and urban landscapes, including school grounds and parks. The off-site storage pond is an existing 14.7-million-gallon storage reservoir at the Sterling/Iron Horse Vineyards property in Forestville that provides additional effluent storage capacity of 6.5 to 13 million gallons annually. Effluent stored in this pond is used for irrigation and frost protection of vineyards on the Sterling/Iron Horse Vineyards property. The amount of recycled water used for irrigation in any year is dependent on weather conditions and the amount of land available for irrigation. The Permittee's preferred disposal method is irrigation, rather than discharge to surface waters.

2.2.5. Additionally, the Permittee has a recycled water fill station at the facility. Trucked recycled water is used for vineyard irrigation, consistent with agronomic demand. Disinfected advanced treated wastewater may be transferred from the Facility to the Graton CSD WWTF at Discharge Point 004.

A recycled water pipeline between the Facility and the Graton CSD WWTF provides the means for transfers of recycled water between the facilities and provisions of recycled water to irrigation customers along the pipeline. The Permittee did not transfer any of its effluent to the Graton CSD WWTF during the term of Order No. R1-2018-0002.

As no agreement regarding transfers of water currently exist, transfers will have to be negotiated on an event-specific basis. If a formal agreement is established within this permit term, as described in Order section 4.5.3., transfers between the two facilities could occur more frequently and provide more reliable storage and disposal of effluent. Since both facilities treat effluent to tertiary standards, transfers could occur without any additional treatment prior to disposal. There are differences in the effluent limits, such as turbidity, for each facility, but these differences are attributable to the use of different filtration technology, and are not a reflection of overall effluent quality.

2.3. Summary of Existing Requirements and SMR Data

Effluent limitations contained in Order No. R1-2018-0002 for discharges to the 3.25 million gallon treated effluent storage pond (Monitoring Locations INT-001 (BOD_5) and INT-001C (TSS)) and Discharge Point 002 (Monitoring Location EFF-002) and representative monitoring data from the term of Order No. R1-2018-0002 are as follows:

Table F-2. Historic Effluent Limitations and Monitoring Data[1]

Parameter	Units	Average Monthly Limitation	Average Weekly Limitation	Maximum Daily Limitation	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	10	15	--	8.4	42	42
BOD_5	% Removal	85	--	--	95.5[2]	--	95.5[2]
Total Suspended Solids (TSS)	mg/L	10	15	--	2.8	--	2.8
TSS	% Removal	85	--	--	99.15[2]	--	99.15[2]
pH	s.u.	--	--	6.5 – 8.5	--	--	6.50-7.74

Parameter	Units	Average Monthly Limitation	Average Weekly Limitation	Maximum Daily Limitation	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Copper, Total Recoverable	µg/L	22	--	66	8.3	--	8.3
Cyanide, Total Recoverable	µg/L	4.4	--	7.9	11	--	11
Chlorine, Total Residual	mg/L	0.01	--	0.02	<0.01	--	<0.01
Chlorodibromomethane	µg/L	0.41	--	0.80	0.14	--	0.14
Dichlorobromomethane	µg/L	0.56	--	1.1	2	--	2
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--	16	--	16
Ammonia Nitrogen, Total (as N)	mg/L	1.7	--	5.0	14	--	14
Acute Toxicity	% Survival	70[4]/90[5]	--	--	100[6]	--	100
Total Coliform Bacteria	MPN/100 mL	23[7]	2.2[8]	240	<2	<2	<2

Table Notes:

1. Data represented in the table includes all relevant monitoring results from July 1, 2018 – March 1, 2023 at INT-001B, INT-001C, and EFF-002.
2. Represents the minimum observed monthly average percent removal value.
3. Represents the median concentrations Most Probable Number (MPN) per 100 milliliters, using the bacteriological results of the last 30 calendar days for which analyses have been completed.
4. Minimum for any one bioassay.

5. Median for any three or more consecutive bioassays.
6. Represents the minimum observed percent survival.
7. The number of coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.
8. The median of the last 7 days for which analysis have been collected.

2.4. Compliance Summary

2.4.1. On July 26, 2018, the Regional Water Board adopted Time Schedule Order (TSO) No. R1-2018-0037 that established interim effluent limitations for cyanide, ammonia and nitrate based on the reasonable potential analysis performed during the previous permit term. The Permittee anticipates that all tasks detailed in the time schedule full compliance shall be completed by March 1, 2026. The Permittee developed and submitted an Ammonia and Nitrate Study Work Plan, a Pollution Prevention Plan, and a funding application to complete the study (Tasks A, B and C).

2.5. Planned Changes

2.5.1. The Permittee plans to reduce inflow and infiltration (I/I) into the collection system by replacing or lining targeted portions of the collection system.

2.5.2. The Permittee plans to conduct an Ammonia and Nitrate Study Work Plan and continue following the compliance schedule outlined in Time Schedule Order R1-2018-0037 including implementing any necessary operational modifications to comply with the ammonia and nitrate effluent limitations.

2.5.3. The Permittee is also planning to acquire funding for an addition onto the existing filtration unit to increase treatment capacity and reduce the wear on the filtration unit as a whole. The addition would therefore reduce the potential for bypass/overflow issues during flood events.

3. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

3.1. Legal Authorities

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

3.2. California Environmental Quality Act (CEQA)

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

This action also involves the re-issuance of waste discharge requirements for an existing facility that discharges treated wastewater to land and as such, is also exempt from CEQA pursuant to title 14, CCR, section 15301 as an existing facility for which no expansion of use is being permitted.

The Permittee has not proposed any new recycled water sites that require CEQA review at this time. When approving proposals for new recycled water sites, the Regional Water Board's action is subject to CEQA. Regional Water Board compliance with CEQA shall be addressed during the approval process for recycled water expansion areas set forth in Attachment I to this Order. The approval process requires demonstration that a CEQA analysis has been conducted for the recycled water use type and/or the geographical area of the recycled water use. The Permittee must also submit technical information necessary to demonstrate that any proposed recycled water use areas will be irrigated using the most stringent of the hydraulic and nutrient agronomic rate and include best management practices that are protective of surface and ground water quality, as described in Attachment I to this Order.

If a local agency (e.g., Permittee or other approved lead agency pursuant to CEQA regulations) has conducted an appropriate CEQA analysis, the Regional Water Board may review the CEQA document prepared by the local agency and make findings based on that document. If the local agency does not prepare a CEQA document, and the project is not otherwise exempt from CEQA requirements, the Regional Water Board could act as the lead agency under CEQA and prepare any necessary document to comply with CEQA, however, this could result in delays in project approval until such time that a proper CEQA analysis can be conducted by the Regional Water Board.

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

3.3.1. Water Quality Control Plan.

The Regional Water Board adopted a Water Quality Control Plan for the North Coast Region (hereinafter Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Beneficial uses applicable to Jones Creek are summarized in Table F-3, as follows:

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
002	Jones Creek, tributary to the Russian River via Green Valley Creek within the Guerneville Hydrologic Subarea of the Lower Russian River Hydrologic Area	Existing: Municipal and domestic supply (MUN); Agricultural supply (AGR); Industrial service supply (IND); Groundwater recharge (GWR); Freshwater replenishment (FRSH); Navigation (NAV); Water contact recreation (REC-1); Non-contact water recreation (REC-2); Commercial and sport fishing (COMM); Warm Freshwater Habitat (WARM); Cold freshwater habitat (COLD); Wildlife habitat (WILD); Rare, threatened, or endangered species (RARE); Migration of aquatic organisms (MIGR); Spawning, reproduction, and/or early development (SPWN); and Estuarine Habitat (EST) Potential: Industrial process supply (PRO); Hydropower generation (POW); Shellfish Harvesting (SHELL); and Aquaculture (AQUA).
002, and 003	Groundwater	Existing: Municipal and domestic supply (MUN); Agricultural supply (AGR); Industrial service supply (IND); and Native American culture (CUL). Potential: Industrial process supply (PRO); and Aquaculture (AQUA).

Table Notes
1. Estuarine Habitat is not present in Jones Creek or Green Valley Creek.

In addition to the beneficial uses set out in the Basin Plan, there are several implementation plans that include actions intended to meet water quality objectives and protect beneficial uses of the North Coast Basin. For the Russian

River and its tributaries, no point source waste discharges are allowed during the period of May 15 through September 30, and for all other periods the receiving stream's flow must be at least 100 times greater than the waste flow unless an exception to the requirement is granted by the Regional Water Board. Additionally, the discharge of municipal waste during October 1 through May 14 shall be of advanced treated wastewater and shall meet a median coliform level of 2.2 MPN/100 mL.

3.4. **Requirements of this Order implement the Basin Plan.**

3.4.1. The Water Quality Control Plan for the North Coast Region (hereinafter Basin Plan) limits discharges to the Russian River and its tributaries to one percent of the receiving water flow (1:100) unless an exception to the requirement is granted by the Regional Water Quality Control Board (Regional Water Board). (See section 4.1.10 of this Fact Sheet.) Exceptions are given for cause on a case-by-case basis, taking into consideration:

3.4.1.1. The reliability of the WWTF;

3.4.1.2. Whether the discharge of waste is limited to rates and constituent levels that protect the beneficial uses of the receiving waters;

3.4.1.3. Whether reasonable alternatives for recycling have been addressed to limit the amount of the wastewater to be discharged;

3.4.1.4. Whether the exception complies with state and federal antidegradation policies; and

3.4.1.5. Whether there is any discharge of waste to surface waters during the period of May 15 through September 30.

3.4.2. This Order limits the Permittee's discharge to one percent of the flow of Jones Creek. The Permittee will be unable to meet this requirement. Time Schedule Order (TSO) No. R1-2018-0037 established compliance schedule to give the Permittee time to comply. Additionally, Order No. R1-2018-0037 established an interim flow limit for the Permittee to not exceed one percent of the flow in Green Valley Creek.

3.4.3. National Toxics Rule (NTR) and California Toxics Rule (CTR)

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

3.4.4. State Implementation Policy

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

3.4.5. Domestic Water Quality

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

3.4.6. Compliance Schedules and Interim Requirements.

The State Water Board adopted Resolution No. 2008-0025 on April 15, 2008, titled Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits, (Compliance Schedule Policy) which includes compliance schedule policies for pollutants that are not addressed by the SIP. This Policy became effective on August 27, 2008.

This Order does not include any compliance schedules or interim effluent limitations.

3.4.7. Antidegradation Policy

Federal regulation 40 C.F.R. section 11.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge

must be consistent with the antidegradation provision of 40 C.F.R. section 11.12 and State Water Board Resolution 68-16.

3.4.8. **Anti-Backsliding Requirements**

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. As discussed in detail in section 4.4.1 of this Fact Sheet, removal or relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

Consistent with exception provisions in federal regulations, the Order does not retain the effluent limitations for acute toxicity, copper, and chlorodibromomethane.

3.4.9. **Endangered Species Act Requirements**

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 151 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Permittee is responsible for meeting all requirements of the applicable Endangered Species Act.

3.4.10. **Sewage Sludge and Biosolids**

This Order does not authorize any act that results in violation of requirements administered by U.S. EPA to implement 40 C.F.R. Part 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Permittee is responsible for meeting all applicable requirements of 40 C.F.R. Part 503 that are under U.S. EPA's enforcement authority.

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

Section 303(d) of the federal CWA requires states to identify waterbodies that do not meet water quality standards and are not supporting their beneficial uses after implementation of technology-based effluent limitations on point sources. Each state must submit an updated list, the 303(d) List of Impaired Waterbodies every two years. In addition to identifying the waterbodies that are not supporting beneficial uses, the 303(d) list also identifies the pollutant or stressor causing impairment and establishes a schedule for developing a control plan to address the impairment. The CWA requires development of a total maximum

daily load (TMDL) or alternate program of implementation for each 303(d) listed pollutant and water body to remedy the impairment. TMDLs establish the maximum quantity of a given pollutant that can be added to a water body from all sources without exceeding the applicable water quality standard for that pollutant and determine wasteload allocations (the portion of a TMDL allocated to existing and future point sources) and load allocations (the portion of a TMDL attributed to existing and future nonpoint sources).

On June 9, 2021, the U.S. EPA provided final approval of the 2018 303(d) List of Impaired Water Bodies prepared by the state. The list identifies the entire Russian River watershed (including the Green Valley Creek watershed) as impaired by sedimentation/siltation and temperature, and the portion of the mainstem Russian River from Fife Creek to Dutch Bill Creek as impaired by aluminum. The Green Valley Creek is also impaired by indicator bacteria and dissolved oxygen. Pursuant to CWA section 303(d), the Regional Water Board will develop TMDLs or alternate programs of implementation to address the impairment for sediment, temperature, indicator bacteria, aluminum, and dissolved oxygen, which will be implemented through various programs, including through provisions of NPDES permits.

On August 14, 2019, the Regional Water Board adopted the Action Plan for the Russian River Watershed Pathogen TMDL (TMDL Action Plan or Action Plan) and Prohibition of the Discharge of Fecal Waste Materials as an amendment to the Basin Plan. The Action Plan describes the Program of Implementation designed to control fecal waste pollution, achieve bacterial water quality objectives, and restore the water contact recreation (REC-1) beneficial use to protect public health within the Russian River watershed. The Action Plan establishes wasteload allocations (WLAs) for point source discharges and load allocations (LAs) for nonpoint source discharges. Both WLAs and LAs are expressed as receiving water concentrations of *E*. *coli* bacteria in freshwater and enterococci in saline waters identical to the statewide bacteria objective for the protection of REC-1 for those sources that are permitted to discharge. For municipal wastewater discharges to freshwater surface waters within the Russian River Watershed, the *E*. *coli* bacteria WLAs are less than or equal to 100 colony forming units (CFU) per 100 milliliters (mL) as a six-week rolling geometric mean, calculated weekly, and a statistical threshold value (STV) of 320 cfu/mL not to be exceeded more than ten percent of the time, calculated monthly.

For any direct discharges from the Facility to surface waters, the total coliform effluent limitations derived from title 22 requirements for disinfected tertiary recycled water are sufficient to ensure compliance with WLAs for *E*. *coli* bacteria because the title 22 total coliform limitations are more stringent than the applicable *E*. *coli* bacteria water quality objectives.

The TMDL Action Plan further identifies wastewater holding pond discharges to surface waters as a special area of concern due to the potential for regrowth of

bacteria in these ponds. The Action Plan states that the Regional Water Board will begin to conduct reasonable potential analyses based on information submitted by the implementing party for entities that discharge wastewater from wastewater holding ponds to surface water. For discharges with reasonable potential to cause or contribute to an exceedance of the WLAs, water quality-based effluent limitations will be established in the applicable waste discharge requirements that will ensure compliance with WLAs for bacteria. This Order requires the Permittee to monitor for *E. coli* bacteria for discharges from storage ponds to surface waters and to conduct a Pathogen Special Study in order to develop data needed to assess whether or not the Permittee's discharge is a source of pathogens as defined in the TMDL Action Plan. If there is reasonable potential for pond discharges to exceed the *E. coli* bacteria water quality objectives, a pathogen source study is required to determine if bacteria discharged from the storage ponds is of human origin and, if so, effluent limitations would be established as soon as practicable.

Aspects of the sediment impairing the Russian River include settleable solids, suspended solids, and turbidity. The impact of settleable solids results when they collect on the bottom of a waterbody over time, making them a persistent or accumulative constituent. The impact of suspended solids and turbidity, by contrast, results from their concentration in the water column. An analysis of the Permittee's effluent monitoring data for discharges to Jones Creek indicates levels of BOD_5, TSS, and total coliform bacteria in the effluent are generally less than the effluent limitations required by this Order. Thus, the discharge does not typically contain sediment (e.g., settleable solids, suspended solids, and turbidity) at levels which will cause, have the reasonable potential to cause, or contribute to increases in sediment levels in the Russian River. This finding is based, in part, on the tertiary level of treatment provided by the Facility, which removes settleable solids and reduces TSS and turbidity to negligible levels in wastewater discharged to the Russian River. This finding is also supported by the summer discharge prohibition, the one percent flow limitation for the winter discharge, and previous solids and turbidity monitoring that has demonstrated that the Facility removes settleable solids and turbidity to negligible levels.

With regard to dissolved oxygen, the Basin Plan establishes water quality objectives for dissolved oxygen in the of a daily minimum of 9.0 mg/L, 7-Day moving average of 11 mg/L. Downstream samples for Jones Creek meet the lower limit for all but one sample. Upstream receiving water in Jones Creek as measured at RSW-001 was below the 7-Day moving average of 11 mg/L for all 32 monitoring results and below the daily minimum of 9.0 mg/L for 17 of the 32 monitoring results. Monitoring results showed an average increase of 0.1 mg/L in dissolved oxygen following discharge from the facility.

This shows that the natural conditions of Jones Creek may be below the Basin Plan water quality objectives for the Russian River and that the Permittees discharge has not contributed to a decrease in dissolved oxygen levels in receiving water.

3.6. Other Plans, Polices and Regulations

3.6.1. On December 6, 2022, the State Water Board adopted State Water Board Order No. 2022-0103 DWQ, Statewide General WDRs for Sanitary Sewer Systems. Order No. 2022-0103-DWQ requires that all public agencies that currently own or operate sanitary sewer systems apply for coverage under the General WDRs. The Permittee applied for coverage and is subject to the requirements of Order No. 2022-0103-DWQ and any future revisions thereto for operation of its wastewater collection system.

3.6.2. Coverage under the State Water Board Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial Storm Water General Permit) is not required because the design flow of the Facility is less than 1 mgd.

3.6.3. On July 22, 2004, the State Water Board adopted State Water Board Order No. 2004-0012-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Recycled Water Activities. The Permittee must obtain coverage under Order No. 2004-0012-DWQ prior to any removal of biosolids from the Facility that will be land disposed on property owned or controlled by the Permittee.

3.6.4. In 1996, the State Water Board and the California Department of Health Services (now State Water Board Division of Drinking Water or DDW) set forth principles, procedures, and agreements to which the agencies committed themselves relative to the use of recycled water in California, in a document titled Memorandum of Agreement between the Department of Health Services and the State Water Resources Control Board on the Use of Reclaimed Water (MOA). This Order is consistent with the MOA.

3.6.5. On February 3, 2009, the State Water Board adopted Resolution No. 2009-0011, Adoption of a Policy for Water Quality Control for Recycled Water (Recycled Water Policy) (Revised December 11, 2018, effective April 8, 2019) for the purpose of increasing the use of recycled water from municipal wastewater sources in a manner that implements state and federal water quality laws. The Recycled Water Policy provides direction to the regional water boards regarding the appropriate criteria to be used in issuing permits for recycled water projects and describes permitting criteria intended to streamline, and provide consistency for, the permitting of the vast majority of recycled water projects. Pertinent provisions and requirements of the Policy have been incorporated into this Order to address conditions specific to the Permittee’s plan to implement water recycling.

The Recycled Water Policy 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 further recognizes that these conditions can be caused by natural soils/conditions, discharges of waste, irrigation using surface water, groundwater or recycled water, and water supply augmentation using surface or recycled water, and that regulation of recycled water alone will not address these conditions. It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The Recycled Water Policy finds that the appropriate way to address salt and nutrient issues is through the development of regional or subregional Salt and Nutrient Management Plans (SNMPs) rather than through imposing requirements solely on individual recycled water projects. This Order is consistent with the requirements of the Recycled Water Policy to implement an SNMP. This Order is consistent with the requirements of the Recycled Water Policy to implement a SNMP. The Recycled Water Policy currently requires monitoring for priority pollutants annually.

This Order implements this requirement through the annual CTR priority pollutant monitoring requirement in the MRP that is required of the Permittee pursuant to the SIP.

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

4. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits.

There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to

attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water where a reasonable potential to exceed those criteria exists.

4.1. Discharge Prohibitions

4.1.1. **Discharge Prohibition 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.

This prohibition has been retained from Order No. R1-2018-0002 and is based on the Basin Plan and State Water Board Order No. WQO 2002-0012 regarding the petition of WDRs Order No. 01-072 for the East Bay Municipal Utility District and Bay Area Clean Water Agencies. In State Water Board Order No. WQO 2002-0012, the State Water Board found that this prohibition is acceptable in Orders, but should be interpreted to apply only to constituents that are either not disclosed by the Permittees, or are not reasonably anticipated to be present in the discharge but have not been disclosed by the Permittees. It specifically does not apply to constituents in the discharge that do not have "reasonable potential" to exceed water quality objectives.

The State Water Board has stated that the only pollutants not covered by this prohibition are those which were "*disclosed to the permitting authority and…can be reasonably contemplated.*" [In re the Petition of East Bay Municipal Utilities District et al., (State Water Board, 2002) Order No. WQO 2002-0012, p. 24]. In that Order, the State Water Board cited a case which held the Permittee is liable for the discharge of pollutants "*not within the reasonable contemplation of the permitting authority…whether spills or otherwise…*" [*Piney Run Preservation Assn. v. County Commissioners of Carroll County, Maryland* (4th Cir. 2001) 268 F. 3d 255, 268.] Thus, the State Water Board authority provides that, to be permissible, the constituent discharged (1) must have been disclosed by the Permittees and (2) can be reasonably contemplated by the Regional Water Board.

4.1.2. **Discharge Prohibition 3.2.** Creation of pollution, contamination, or nuisance, as defined by section 13050 of the Water Code is prohibited.

This prohibition has been retained from Order No. R1-2018-0002 and is based on sections 402 of the federal CWA; sections 13050, 13263, and 13377 of the Water Code; and section 5411 of the California Health and Safety Code.

4.1.3. **Discharge Prohibition 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).

This prohibition has been retained from Order No. R1-2018-0002 and is based on restrictions on the disposal of sewage sludge found in federal regulations [40 C.F.R. part 503 (Biosolids), part 527, and part 258] and title 27 of the CCR.

4.1.4. **Discharge Prohibition 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).

This prohibition has been retained from Order No. R1-2018-0002 and is based on the Basin Plan to protect the beneficial uses of the receiving water from unpermitted discharges, and the intent of the Water Code sections 13260 through 13264 relating to the discharge of waste to waters of the state without filing for and being issued an Order. This prohibition applies to spills not related to sanitary sewer overflows (SSOs) and other unauthorized discharges of wastewater within the collection, treatment, and disposal facilities. The discharge of untreated or partially treated wastewater from the collection, treatment, or disposal facility represents an unauthorized bypass pursuant to 40 C.F.R. section 122.41(m) or an unauthorized discharge, which poses a threat to human health and/or aquatic life, and therefore is explicitly prohibited by this Order.

4.1.5. **Discharge Prohibition 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.

This prohibition is retained from Order No. R1- R1-2018-0002. Land used for the application of wastewater must be owned by the Permittee or be under the control of the Permittee by contract (user agreement) so that the Permittee maintains a means for ultimate disposal of treated wastewater.

4.1.6. **Discharge Prohibition 3.6.** The discharge of recycled wastewater to any point not addressed in a DDW-accepted Title 22 Recycled Water Engineering Report is prohibited.

This prohibition is newly established by this Order and is necessary to ensure that the Permittee only discharges recycled water in accordance with WDRs. It is based on sections 301 and 402 of the federal CWA and section 13263 of the Water Code.

4.1.7. **Discharge Prohibition 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 Board or another Regional Water Board is prohibited.

This prohibition has been retained from Order No. R1- R1-2018-0002. This prohibition is a general prohibition that allows the Permittee to discharge waste only in accordance with WDRs. It is based on sections 301 and 402 of the federal CWA and section 13263 of the Water Code.

4.1.8. **Discharge Prohibition 3.8.** The average dry weather flow of waste through the Facility shall not exceed 0.130 mgd, measured daily and averaged over a calendar month. The peak weekly wet weather flow of waste through the Facility shall not exceed 0.576 mgd, measured daily. Compliance with this prohibition shall be determined as defined in sections 7.10 and 7.11 of this Order.

This prohibition is retained from Order No. R1-2018-0002 and is based on the engineering design of the Facility. Exceedance of this capacity on a weekly basis may result in effluent violations and/or the need to by-pass untreated effluent blended with treated effluent, which is prohibited.

4.1.9. **Discharge Prohibition 3.9.** The discharge of waste to the Russian River and its tributaries is prohibited during the period from May 15 through September 30 of each year.

This prohibition retained from Order No. R1-2018-0002 and is required by the Basin Plan. The Basin Plan prohibits discharges to the Russian River and its tributaries during the period May 15 through September 30 (Chapter 4, Waste Discharge prohibitions for the North Coastal Basin).

4.1.10. **Discharge Prohibition 3.10**. During the period from October 1 through May 14, discharges of treated wastewater to Jones Creek, part of the Russian River, shall not exceed one percent of the flow of Jones Creek, as measured at Monitoring Location RSW-001 as described in the MRP. For the purposes of this Order, compliance with this discharge prohibition shall be determined as follows:

4.1.10.1. The discharge of tertiary 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 Jones Creek. Daily flow shall be based on flow meter comparisons reasonably read between the hours of 12:01 am and 12:00 midnight; and

4.1.10.2. In no case shall the total volume of tertiary treated wastewater discharged in a calendar month exceed one percent of the total volume of the Russian 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.

This prohibition has been retained from Order No. R1-2018-0002 and is required by the Basin Plan (Chapter 4, North Coastal Basin Discharge Prohibition No. 3). The Basin Plan prohibits discharges to the Russian River and its tributaries when the waste discharge flow is greater than one percent of the receiving water's flow. Basin Plan Prohibition No. 3 does not specify how compliance to the one-percent flow requirement will be determined. This prohibition, set forth in Provision 3.10 of this Order, specifies that the discharge may comply with the one percent requirement as a monthly average for the surface water discharge season if Monitoring Location RSW-001 at Jones Creek is read at least once daily, and the discharge flow rate shall not be set for greater than one percent of the flow of the river at the time of the daily reading.

Because Jones Creek is not equipped with a flow meter, the reference cross-section of Jones Creek "i" will be used to calculate cross sectional area, hydraulic radius, and wetted perimeter at varying flow depths using the following formulas:

$$n_c = \left[\sum_{i=1}^{N} P_i \, n_i^{1.5} / P\right]^{2/3} \qquad Q = \frac{1.49}{n_c} A R^{2/3} \sqrt{S}$$

Where:

i = Reference cross-section of Jones Creek. Located at the upstream edge of the existing bridge abutments, where the Joe Rodota Trail crosses the creek approximately 240 feet north of Kay Lane.
Q = Flow rate in cubic feet per second.
n_c = Composite roughness coefficient (dimensionless)
A = Cross-sectional area in square feet.
R = Hydraulic radius in feet
S = Channel slope in foot per foot
P = Wetted perimeter of entire channel cross-section in feet
P_i = Wetted perimeter of subdivision i in feet
n_i = n-value for subdivision i (dimensionless)

4.1.11. **Discharge Prohibition 3.11.** The discharge of any radiological, chemical, or biological warfare agent into waters of the state under Water Code section 13375.

This prohibition is retained from Order No. R1-2018-0002 and is based on the discharge prohibitions contained in and Water Code section 13375.

4.1.12. **Discharge Prohibition 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.

This prohibition is newly established by this Order and is necessary to ensure that septage is not accepted in the absence of a septage management program to ensure that pollutants associated with domestic septage do not pass through or interfere with the operation or performance of the Facility.

4.2. Technology-Based Effluent Limitations

4.2.1. Scope and Authority

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

Regulations promulgated in 40 C.F.R. section 125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the U.S. EPA Administrator.

Based on this statutory requirement, U.S. EPA developed secondary treatment regulations, which are specified in 40 C.F.R. part 133. These technology-based regulations apply to all municipal wastewater treatment facilities and identify the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, TSS, and pH, as follows:

4.2.1.1.1. **BOD_5 and TSS**

4.2.1.1.1.1. The 30-day average shall not exceed 30 mg/L.

4.2.1.1.1.2. The 7-day average shall not exceed 45 mg/L.

4.2.1.1.1.3. The 30-day average percent removal shall not be less than 85%.

4.2.1.1.2. **pH**

4.2.1.1.2.1. The pH shall be maintained within the limits of 6.0 to 9.0.

4.2.1.1.2.2. The more stringent effluent limitation for pH of 6.5 to 8.5 required by this Order is necessary to meet the water quality objective for hydrogen ion concentration (pH) is contained in the Basin Plan, Table 3-1.

4.2.1.2. In addition, 40 C.F.R. section 122.45(f) requires the establishment of mass-based effluent limitations for all pollutants limited in Orders, except for 1) pH, temperature, radiation, or other pollutants which cannot be appropriately expressed by mass, 2) when applicable standards and limitations are expressed in terms of other units of measure, and 3) where the permit limitation is established on a case-by-case basis under 40 C.F.R. section 125.3 and limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation, and permit conditions ensure that dilution will not be used as a substitute for treatment.

Technology-based effluent limitations may be set on a case-by-case basis under section 402(a)(1) of the CWA to the extent that EPA-promulgated effluent limitations are inapplicable based upon the available information and unique factors related to the applicant. A combination of EPA-promulgated effluent limitations and effluent limitations developed under a case-by-case basis scenario may be applied to carry out the provisions of the CWA. “Best Practicable Control Technology” (BPT) requirements may be established by a permitting authority on a case-by-case basis considering the appropriate factors listed at 40 C.F.R. section 125.3(d)(1). Factors to be considered for BPT requirements include:

4.2.1.2.1. The total cost of application of the technology in relation to the effluent reduction benefits to be achieved from such application;

4.2.1.2.2. The age of equipment and facilities involved;

4.2.1.2.3. The process employed;

4.2.1.2.4. The engineering aspects of the application of various types of control techniques;

4.2.1.2.5. Process changes; and

4.2.1.2.6. Non-water quality environmental impacts (including energy requirements).

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

The effluent limitations in this Order for BOD_5, TSS, and pH not only meet the technology-based requirements for secondary treatment set forth in section 133.102, but they also are required to meet the water quality-based requirements set forth in the Basin Plan.

In addition to the minimum federal technology-based requirements, the Basin Plan requires that discharges of municipal waste "*shall be of advanced treated wastewater in accordance with effluent limitations contained in NPDES permits for each affected discharger, and shall meet a median coliform level of 2.2 MPN/100 mL*" for discharges to the Russian River and its tributaries during October 1 through May 14. This requirement leaves discretion to the Regional Water Board to define advanced wastewater treatment by the implementation of effluent limitations in individual permits. This Order uses the terms "disinfected tertiary wastewater" and "disinfected tertiary recycled water" in place of the term "advanced treated wastewater".

4.2.2.1. **BOD_5 and TSS.** For the purpose of regulating municipal waste discharges from the Facility to the effluent storage pond, advanced wastewater treatment is defined as achieving a monthly average concentration for BOD_5 and suspended solids of 10 mg/L, and a weekly average concentration of 15 mg/L, which are technically achievable based on the capability of a tertiary treatment system. In addition, 40 C.F.R. 133.102, in describing the minimum level of effluent quality attainable by secondary treatment, states that the 30-day average percent removal shall not be less than 85 percent. These effluent limitations are retained from Order No. R1-2018-0002.

Order No. R1-2018-0002 required that any transfer from Forestville to Graton CSD WWTF consist of disinfected tertiary effluent, in anticipation of Graton's upgrade to tertiary treatment. Consistent with the completion of the Graton facility upgrade, this Order retains the requirements established in Order No. R1-2018-0002 for requiring tertiary treatment of wastewater transferred to Graton CSD WWTF.

4.2.2.2. **pH.** The secondary treatment regulations at 40 C.F.R. part 133 require that pH be maintained between 6.0 and 9.0 standard units. This technology based effluent limitation is applied to discharges from the treatment system to the Effluent Storage Pond at Discharge Point 002. Note that a more stringent effluent limitation range of 6.5 – 8.5 for pH is

required to meet the water quality objective for hydrogen ion concentration (pH) in the Russian River contained in Basin Plan, Table 3-1.

4.2.2.3. **Mass-Based Effluent Limitations.** Federal regulations at 40 C.F.R. section 122.45(f) require that, except under certain conditions, all permit limits, standards, or prohibitions be expressed in terms of mass units. Among the conditions exempting the application of mass-based limitations is 40 C.F.R. section 122.45(f)(1)(i), which states "for pH, temperature, and radiation, or other pollutants which cannot appropriately be expressed by mass" and 40 C.F.R. section 122.45(f)(1)(ii), which states "when applicable standards and limitations are expressed in terms of other units of measurement."

This Order does not include mass-based effluent limitations for the following pollutants pursuant to the exceptions in 40 C.F.R. section 122.45(f)(1)(i) and (ii):

4.2.2.3.1. BOD_5 and TSS, because these two parameters are expressed in terms of concentration and percent removal; and

4.2.2.3.2. pH and settleable solids, because this parameter cannot appropriately be expressed by mass.

4.2.2.1. **Coliform Bacteria**. Even though effluent limits for coliform bacteria are not set out in the federal regulations for secondary treatment, they are included here in the section on technology-based effluent limitations because they reflect technology standards for tertiary treatment. Coliform bacteria are a pollutant of concern in all wastewaters of domestic origin, and therefore this Order retains the effluent limitations for total coliform bacteria from Order No. R1-2018-0002.

These effluent limitations reflect standards for tertiary treated effluent in the Basin Plan (section 4, Implementation Plans) and as adopted by the State Water Board, DDW in title 22 of the CCR. Recycled water from this Facility meets the most protective title 22 treatment and disinfection standards and is suitable for the broad range of recycled water uses identified in title 22, including urban land uses.

Table F-4. Summary of Technology Based Effluent Limitations –Monitoring Locations INT-001 (BOD5) and INT-001C (TSS)

Parameter	Unit	Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	10	15	--	--	--
BOD_5	% Removal	85	--	--	--	--
Total Suspended Solids (TSS)	mg/L	10	15	--	--	--
TSS	% Removal	85	--	--	--	--
pH	standard units	--	--	--	6.5[1]	8.5[1]
Total Coliform Bacteria	MPN/100 mL	23[2]	2.2[3]	240	--	--

Table Notes:

1. This Order includes final instantaneous minimum and maximum effluent limitations for pH of 6.5 and 8.5, respectively, based on the more stringent water quality criteria.
2. The number of coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.
3. The median of the last 7 days for which analysis have been collected.

4.3. Water Quality-Based Effluent Limitations (WQBELs)

4.3.1. Scope and Authority

CWA Section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements that are necessary to meet applicable water quality standards. The rationale for these requirements, which consist of secondary treatment, is discussed in section 4.3.3 of this Fact Sheet.

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

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

4.3.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

4.3.2.1. **Beneficial Uses.** Beneficial use designations for receiving waters for discharges from the Facility are presented in section 3.3.1 of this Fact Sheet.

4.3.2.2. **Basin Plan Water Quality Objectives.** The Basin Plan contains narrative objectives for color, tastes and odors, floating material, suspended material, settleable material, oil and grease, biostimulatory substances, sediment, turbidity, pH, dissolved oxygen, bacteria, temperature, toxicity, pesticides, chemical constituents, and radioactivity that apply to inland surface waters, enclosed bays, and estuaries, including the Russian River and its tributaries. For waters designated for use as domestic or municipal supply (MUN), the Basin Plan establishes

as applicable water quality criteria the MCLs established by the State Water Board, Division of Drinking Water (DDW) for the protection of public water supplies at title 22 of the CCR section 64431 (Inorganic Chemicals) and section 64444 (Organic Chemicals).

4.3.2.3. **SIP, CTR, and NTR.** Water quality criteria and objectives applicable to this receiving water are established by the CTR, established by the U.S. EPA at 40 C.F.R. section 131.38; and the NTR, established by the U.S. EPA at 40 C.F.R. section 131.36. Criteria for most of the 126 priority pollutants are contained within the CTR and the NTR.

The SIP, which is described in section 3.3.4. of this Fact Sheet, includes procedures for determining the need for, and the calculation of, WQBELs and requires Permittees to submit data sufficient to do so.

At title 22, division 4, chapter 15 of the CCR, DDW has established MCLs for certain pollutants for the protection of drinking water. Chapter 3 of the Basin Plan establishes these MCLs as water quality objectives applicable to receiving waters with the beneficial use designation of municipal and domestic supply.

Aquatic life freshwater and saltwater criteria are identified in the CTR and NTR as criterion maximum concentrations (CMC) and criterion continuous concentrations (CCC). The CTR defines the CMC as the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects and the CCC as the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects. The CMC is used to calculate an acute or 1-hour average numeric effluent limitation and the CCC is used to calculate a chronic or 4-day average numeric effluent limitation. Aquatic life freshwater criteria were used for the Reasonable Potential Analysis and for the calculation of effluent limitations for cyanide and ammonia.

Human health criteria are further identified as “water and organisms” and “organisms only”. “Water and organism” criteria are designed to address risks to human health from consumption of drinking water, fish and shellfish. The criteria from the “water and organisms” column of CTR were used for the RPA because the Basin Plan identifies that the receiving water, Jones Creek, has the beneficial use designation of municipal and domestic supply. Human health criteria were used for the RPA and for the calculation of effluent limitations for dichlorobromomethane, and nitrate.

4.3.3. Determining the Need for WQBELs

NPDES regulations at 40 C.F.R. section 122.44(d) require effluent limitations to control all pollutants, which are or may be discharged at a level that will

cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard.

For WQBELs for toxic pollutants, Section 5.2.3 of the EPA Technical Support Document for Water Quality-based Toxic Controls states “in lieu of an Average Weekly Limit (AWL) for POTWs, EPA recommends establishing a Maximum Daily Limit (MDL) (or a maximum test result for chronic toxicity) for toxic pollutants and pollutant parameters in water quality permitting. This is appropriate for at least two reasons. First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge’s potential for causing acute toxic effects would be missed. A MDEL, which is measured by a grab sample, would be toxicologically protective of potential acute toxicity impacts.”

Section 1.4 of the SIP states that maximum daily effluent limitations (MDEL) shall be used for POTWs in place of average weekly effluent limitations (AWEL) for WQBELs. The SIP procedure of calculating an AMEL and an MDEL applies to all CTR pollutants, both those that are for protection of aquatic life and those that are for the protection of human health.

The RPA for discharges to Jones Creek at Discharge Point 002 was conducted as follows.

4.3.3.1. **Non-Priority Pollutants**

4.3.3.1.1. **pH.** The effluent limitation for pH of 6.5 to 8.5 is retained from Order No. R1-2018-0002. This limitation is based on the water quality objective for all surface waters established in chapter 3, Table 3-1 of the Basin Plan. Federal technology-based requirements prescribed in 40 C.F.R. part 133 are not sufficient to meet these Basin Plan water quality standards.

4.3.3.1.2. **Chlorine Residual.** The Basin Plan establishes a narrative water quality objective for toxicity which states “[a]ll waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.” The Regional Water Board considers any chlorinated discharge as having the reasonable potential to cause or contribute to exceedances of this water quality objective for toxicity, and therefore this Order includes effluent limitations for chlorine. U.S. EPA has established the following criteria for chlorine-produced oxidants for protection of freshwater aquatic life in Quality Criteria for Water 1986 (The Gold Book, 1986, EPA 440/5-86-001). The chronic and acute

criterion established for residual chlorine are 0.011 mg/L and 0.019 mg/L, respectively. Consistent with Order No. R1-2018-0002, the water quality criteria for total chlorine residual recommended by U.S. EPA have been translated to an AMEL of 0.01 mg/L and an MDEL of 0.02 mg/L in this Order.

4.3.3.1.3. **Nitrogen Compounds.** Untreated domestic wastewater contains ammonia nitrogen. Nitrification is a biological process that converts ammonia to nitrite and nitrate. Denitrification is a process that converts nitrate to nitrogen gas, which is then released to the atmosphere. Inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving stream and inadequate or incomplete denitrification may result in the discharge of nitrate to the receiving stream. The Facility achieves varying levels of nitrification and denitrification throughout the year. Treatment plants such as the Facility often experience minimal nitrification in the winter, full nitrification and denitrification during the warm season, and full nitrification but limited denitrification during transition periods. On July 26, 2018, the Regional Water Board adopted Time Schedule Order (TSO) No. R1-2018-0037 that established interim effluent limitations for ammonia and nitrate based on the reasonable potential analysis performed during the previous permit term. The Permittee developed and submitted an Ammonia and Nitrate Study Work Plan, a Pollution Prevention Plan, and a funding application to complete the study.

4.3.3.1.3.1. **Nitrate.** Nitrate is known to cause adverse health effects in humans. For waters designated as domestic or municipal supply, the Basin Plan (Chapter 3) adopts the MCLs, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 6441 (Inorganic Chemicals) and 64444 (Organic Chemicals), as applicable water quality criteria. The MCL for nitrate (10 mg/L as N) is therefore applicable as a water quality criterion. The Permittee sampled its treated wastewater monthly during July 2018 through March 2023. Effluent water monitoring results for nitrate as N ranged between 2.4 mg/L and 78 mg/L based on 10 samples. Because nitrate levels in effluent have been measured at concentrations higher than 10 mg/L N, the Regional Water Board concludes that discharges from the Facility has a reasonable potential to cause or contribute to exceedances of the applicable water quality criterion for the receiving water for nitrate. In order to protect water quality, an AMEL for nitrate of 10 mg/L has been retained from Order No. R1-2018-0002.

4.3.3.1.3.2. **Ammonia.** Ammonia is known to cause toxicity to aquatic organisms in surface waters. The Basin Plan establishes a narrative water quality objective for toxicity, stating that “[a]ll waters shall be maintained free of

toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life." Due to concerns regarding ammonia toxicity, the Regional Water Board relies on U.S. EPA's recommended water quality criteria for ammonia to interpret the Basin Plan's narrative objective for toxicity. For freshwater, the recommended criteria are from the April 2013 Aquatic Life Ambient Water Quality Criteria for Ammonia – Freshwater, EPA 822-R-13-001 (2013 Freshwater Criteria). The 2013 Freshwater Criteria is an update to the December 1999 Update of Ambient Water Quality Criteria for Ammonia (1999 Freshwater Criteria).

The 2013 Freshwater Criteria recommends acute and chronic water quality criteria for the protection of aquatic life, including salmonids and sensitive freshwater mussel species in the Family Unionidae that are more sensitive to ammonia than salmonids. Like the 1999 Freshwater Criteria document, the 2013 Freshwater Criteria document recommends acute (1-hour average) criteria based on pH and the presence/absence of salmonids and chronic (30-day average) criteria based on pH and temperature and that no 4-day average concentration should exceed 2.5 times the 30-day chronic criterion. In addition, the 2013 Freshwater Criteria document recommends these same criteria for sensitive mussel species.

Adequate information is not available to determine if these freshwater mussels are present in the receiving water.

For this Order, the Regional Water Board has changed its approach for evaluating ammonia toxicity. This Order establishes an Ammonia Impact Ratio (AIR) for determining compliance with ammonia effluent limitations. The AIR is calculated as the ratio of the ammonia concentration in the effluent to the applicable 2013 Freshwater Criteria which is based on the receiving water pH and temperature at the time that each effluent sample is collected. See Attachment G of this Order for a sample log to help calculate and record the AIR values and Attachment H for applicable pH- and temperature-dependent criteria.

Receiving water pH of 7.47 and temperature of 14.4°C at Monitoring Location RSW-001 were used to calculate acute and chronic criteria of 1.93 mg/L and 2.14 mg/L, respectively, using the assumptions that salmonids and mussels are both present.

The most stringent water quality objective, as shown in the calculations in the paragraph preceding this, is 1.93 mg/L. The maximum observed effluent ammonia concentration from the Facility was 16 mg/L, based on 10 samples collected between July 2018 and March 2023.

Because ammonia in the treated wastewater has been measured at a concentration greater than EPA's 2013 Freshwater Criteria at Monitoring Location EFF-002, the Regional Water Board concludes that discharges from the Facility have a reasonable potential to cause or contribute to exceedances of the Basin Plan's applicable narrative water quality criterion for toxicity. Therefore, this Order includes effluent limitations for ammonia for the protection of aquatic life. This Order establishes an average monthly effluent limitation (AMEL) of 1.0 and a maximum daily effluent limitation of 1.0, both expressed as an AIR. Attachment G provides calculations of the ammonia AMEL and MDEL.

4.3.3.1.4. **Biostimulatory Substances (Phosphorus and Nitrogen).** The Basin Plan contains a narrative water quality objective for biostimulatory substances that states "[w]aters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses." The Regional Water Board is increasingly concerned about the biostimulatory properties of discharges to surface waters in the North Coast Region. Nutrients, such as phosphorus and nitrogen containing compounds, in treated wastewater stimulate the growth rate of photosynthetic bacteria, algae, and other aquatic plants. The overabundance of nitrogen and phosphorus compounds in surface water bodies can result in the excessive growth and decay of these organisms, thus accelerating the process of eutrophication. These phenomena cause dissolved oxygen levels to drop below concentrations needed for the survival and health of fish and aquatic life, which in turn negatively affects the aesthetic quality of water bodies and impairs beneficial uses.

At present, for interpretation of the Basin Plan's narrative water quality objective for biostimulatory substances, U.S. EPA has established recommended water quality criteria for nutrients in *Nutrient Criteria Documents for Lakes and Rivers and Nutrient Criteria Documents for Rivers and Streams*. U.S. EPA has defined 14 "ecoregions" and further categorized surface waters as lakes and reservoirs or rivers and streams for purposes of defining applicable numeric water quality criteria for nutrients. The State and Regional Water Boards continue to examine other methods of interpreting the Basin Plan's narrative water quality objective for biostimulatory substances. When the Boards determine that U.S. EPA's recommended criteria are appropriate for implementing the Basin Plan objectives, or when a more appropriate and meaningful method is established, the need for limiting nutrients in relation to biostimulatory properties, including phosphorus and nitrogen-containing compounds, in all discharges in the Region will be reassessed. In the meantime, the RPA for nutrients in relation to biostimulatory properties, performed for development of this Order, is inconclusive. The Order retains monitoring requirements for

phosphorus and nitrogen containing compounds in discharges from the Facility to allow a determination of reasonable potential analysis at such time as the State and Regional Water Boards select an appropriate method for interpretation of the Basin Plan's narrative objective.

4.3.3.1.5. **Pathogens (*E. coli* bacteria).** On August 7, 2018, the State Water Board adopted Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Policy (Statewide Bacteria Provisions), which establishes water quality objectives for reasonable protection of people that recreate within all surface waters, enclosed bays, and estuaries of the state that have the water contact recreation beneficial use (REC-1). In accordance with the water quality objectives outlined in the Statewide Bacteria Provisions for the protection of freshwaters used for water contact recreation, disinfected effluent shall not result in the exceedance of the following objectives:

4.3.3.1.5.1. The concentration of *E. coli* bacteria shall not exceed 100 colony forming units (cfu) per 100 milliliters (mL) as a six-week rolling geometric mean, calculated weekly.

4.3.3.1.5.2. A statistical threshold value (STV) of 320 cfu/100 mL shall not be exceeded by more than 10 percent of the samples collected in a calendar month and calculated in a static manner.

This Order includes effluent limitations for total coliform bacteria based on standards set forth in CCR, title 22, section 60301.225 for disinfected tertiary recycled water. Discharges to surface water in compliance with these effluent limitations for recycled water, which are more stringent than the *E. coli* standards set forth in the Statewide Bacteria Standards, will ensure that bacterial standards for water contact recreation are maintained throughout the receiving water.

This Order contains effluent limitations for total coliform bacteria that reflect standards for tertiary treated effluent in the Basin Plan (section 4, Implementation Plans) and as adopted by the State Water Board, DDW in title 22 of the CCR. Because *E. coli* bacteria is a subset of the total coliform group, the *E. coli* bacteria limitations established in the Statewide Bacteria Provisions are not as stringent as the title 22 total coliform standards for disinfected tertiary recycled water implemented in this Order for assessment of treatment performance. POTWs utilizing more stringent effluent limitations based on title 22 are not required to comply with the less stringent bacteria water quality objectives for protection of water contact recreation, so the effluent limitations from the Statewide Bacteria Provisions have not been included in this Order. Treated effluent

discharged in compliance with the effluent limitations established for total coliform will ensure that bacterial standards for water contact recreation are maintained throughout the receiving water.

4.3.3.2. **Priority Pollutants**

The SIP establishes procedures to implement water quality criteria from the NTR and CTR and for priority, toxic pollutant objectives established in the Basin Plan. The implementation procedures of the SIP include methods to determine reasonable potential (for pollutants to cause or contribute to excursions above state water quality standards) and to establish numeric effluent limitations, if necessary, for those pollutants showing reasonable potential.

Section 1.3 of the SIP requires the Regional Water Board to use all available, valid, relevant, and representative receiving water and effluent data and information to conduct an RPA. During the term of Order No. R1-2018-0002, priority pollutant sampling on effluent water was conducted on March 23, 2021 at Monitoring Location INT-001C. Additionally, priority pollutant sampling on receiving water was conducted on March 23, 2021 at Monitoring Location RSW-001. These data were used to conduct the RPA.

Hardness: The CTR and the NTR contain water quality criteria for seven metals that vary as a function of hardness; the lower the hardness, the lower the water quality criteria. The SIP requires water quality criteria be properly adjusted for hardness, using the hardness of the receiving water. The hardness-dependent metal criteria include cadmium, copper, chromium (III), lead, nickel, silver, and zinc. The Permittee sampled its receiving water during July 2018 through March 2023. Effluent water monitoring for hardness results ranged between 73 mg/L and 170 mg/L as CaCO3 based on 32 samples. The minimum observed receiving water hardness of 73 mg/L as CaCO3 was used to calculate the criteria.

To conduct the RPA, Regional Water Board staff identified the maximum effluent concentration (MEC) and maximum background (B) concentration for each priority, toxic pollutant from effluent and receiving water data provided by the Permittee, and compared this information to the most stringent applicable water quality criterion (C) for each pollutant with applicable water quality criteria from the NTR, CTR, and the Basin Plan. Section 1.3 of the SIP establishes three triggers for a finding of reasonable potential.

Trigger 1. If the MEC is greater than C, there is reasonable potential, and an effluent limitation is required.

Trigger 2. If B is greater than C, and the pollutant is detected in effluent (MEC > ND), there is reasonable potential, and an effluent limitation is required.

Trigger 3. After a review of other available and relevant information, a permit writer may decide that a WQBEL is required. Such additional information may include, but is not limited to: the facility type, the discharge type, solids loading analyses, lack of dilution, history of compliance problems, potential toxic impact of the discharge, fish tissue residue data, water quality and beneficial uses of the receiving water, CWA 303(d) listing for the pollutant, and the presence of endangered or threatened species or their critical habitat.

4.3.3.3. Reasonable Potential Determination

Reasonable potential could not be determined for all pollutants, as there are not applicable water quality criteria for all pollutants. The RPA determined that there is either no reasonable potential or there was insufficient information to conclude affirmative reasonable potential for 119 of the 126 priority pollutants.

Table F-5 summarizes the RPA for each pollutant that was reported in detectable concentrations in the effluent or the receiving water. The MECs, most stringent water quality objectives/water quality criteria (WQO/WQCs), and background concentrations (B) used in the RPA are presented, along with the RPA results (Yes or No and which trigger) for each toxic pollutant analyzed. No other pollutants with applicable, numeric water quality criteria from the NTR, CTR, and the Basin Plan were measured above detectable concentrations during the monitoring events conducted by the Permittee. Attachment F-1 to this Order summarizes the RPA for all 126 priority pollutants.

Table F-5. Summary of Reasonable Potential Analysis Results for Priority Pollutants, Ammonia, and Title 22 Pollutants

CTR No.	Pollutant	Unit	C or Most Stringent WQO/WQC	MEC or Minimum DL[1]	B or Minimum DL	RPA Result[2]
2	Arsenic, Total Recoverable	ug/L	10	0.93	--	No
6	Copper, Total Recoverable	ug/L	32	8.3	--	No
9	Nickel, Total Recoverable	ug/L	74	3.7	--	No
14	Cyanide, Total (as CN)	ug/L	5.2	11	3.4	Yes
23	Chlorodibromomethane	ug/L	0.41	0.14	--	UD
26	Chloroform	ug/L	80	18	--	UD
27	Dichlorobromomethane	ug/L	0.56	2	--	Yes
N/A	Manganese	ug/L	50	51	--	Yes

N/A	Nitrate (as N)	mg/L	10	15	0.96	Yes
N/A	Nitrite (as N)	mg/L	1	0.69	--	No
N/A	Ammonia (as N)	mg/L	3.18228	13	0.2	Yes

Table Notes:

1. The Maximum Effluent Concentration (MEC) or maximum background concentration (B) is the actual detected concentration unless it is preceded by "<", in which case the value shown is the minimum detection level as the analytical result was reported as not detected (ND).
2. RPA Results:
   = Yes, if MEC > WQO/WQC, or B > WQO/WQC and MEC is detected.
   = No, if MEC and B or < WQO/WQC or all effluent data are undetected.
   = Undetermined (UD).
3. Copper WQO calculated with a water effect ratio (WER) of 8.75 and the most stringent WQO from the CTR using the lowest receiving water hardness of 37 mg/L (8.75 x 3.7 µg/L = 32 µg/L).
4. Ammonia criteria are determined on a sliding scale based upon temperature and pH. The criterion represented in this table is based upon chronic exposure and a temperature of 20.1°C and a pH of 9.8.

4.3.3.4. Additional details regarding priority pollutant constituents for which reasonable potential was found are included in the following paragraphs:

4.3.3.4.1. **Dichlorobromomethane (DCBM).** The CTR establishes a water quality objective for the protection of human health for DCBM of 0.56 µg/L. During July 2018 through March 2023 the Permittee sampled the effluent for DCBM 8 times with results ranging from ND (<0.2 µg/L) to 2 µg/L. Receiving water data for DCBM is not available. A determination of reasonable potential has been made based on the MEC of 2 µg/L and 1 additional result exceeding the most stringent water quality objective of 0.56 µg/L. Therefore, this order establishes an average monthly effluent limitation of 0.56 µg/L dichlorobromomethane and a daily maximum limitation of 1.1 µg/L at monitoring locations EFF-002. Fact Sheet section 4.3.4 provides calculations of the DCBM AMEL and MDEL.

4.3.3.4.2. **Cyanide.** The CTR establishes a water quality objective for the protection of freshwater aquatic life of 5.2 µg/L. During July 2018 through March 2023, the Permittee sampled the effluent for cyanide 9 times, respectively with results ranging from ND to 11 µg/L. Receiving water data for Cyanide is not available. A determination of reasonable potential has been made based on

the MEC of 11 µg/L exceeding the most stringent water quality objective of 5.2 µg/L. Five of the 9 samples exceeded 5.2 µg/L.

4.3.3.4.3. **Manganese**. Manganese is known to cause adverse health effects in humans. For waters designated as domestic or municipal supply, which the Russian River and its tributaries are designated, the Basin Plan (Chapter 3) adopts the MCLs, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals), as applicable water quality criteria. The MCL for Manganese is 50 µg/L. The Permittee sampled effluent for Manganese one time on January 29, 2019 and did not sample for Manganese in receiving water. The result of the sampling event at EFF-002 was 51 µg/L. Receiving water data for Manganese is not available. A determination of reasonable potential has been made based on the MEC of 51µg/L exceeding the most stringent water quality objective of 50 µg/L. Therefore, this order establishes an average monthly effluent limitation of 50 µg/L Manganese and a daily maximum limitation of 100 µg/L at monitoring locations EFF-002.

4.3.3.5. Additional details regarding priority pollutant constituents for which reasonable potential was not found, but warrant further explanation are included in the following paragraphs:

4.3.3.5.1. **Chlorodibromomethane (CDBM).** The CTR establishes a water quality objective for the protection of human health for CDBM of 0.41 µg/L. The Permittee sampled the effluent for CDBM 8 times during the term of Order No. R1-2018-0002 with results ranging from ND (<0.08 µg/L) to 0.14 µg/L. . Receiving water data for CDBM is not available. A determination of no reasonable potential has been made based on the MEC of the 0.14 µg/L and 7 additional results below the most stringent water quality objective of 0.41 µg/L, and therefore effluent limitations have not been retained in this Order.

4.3.3.5.2. **Copper.** The CTR includes hardness-dependent criteria for the protection of freshwater aquatic life for copper. The criteria for copper is expressed in dissolved concentrations. U.S. EPA recommends conversion factors to translate dissolved concentrations to total concentrations. The U.S. EPA default conversion factors for copper in freshwater are 0.96 for both the acute and the chronic criteria. The default Water Effect Ratio (WER) used for calculating criteria for copper is 1.0. In 2016 the Permittee conducted a WER study as a requirement of Cease and Desist Order No. R1-2012-0011 to determine the site-specific toxicity of copper in the receiving water at the point of discharge.

The regional water board approved the Permittee's WER study on December 13, 2017. The Permittee's study concluded that effluent indicated the presence of a water-effect on the bioavailability of copper, and a site specific WER of 8.39 for total recoverable copper and 7.98 for dissolved copper apply to the discharge. Using the worst-case measured hardness from the receiving water (37 mg/L), the U.S. EPA-recommended dissolved-total translator of 0.96, and the site-specific WER, the applicable chronic criterion (maximum 4-day average concentration) is adjusted to 31 µg/L and the applicable acute criterion (maximum 1-hour average concentration) is adjusted to 44 µg/L.

The Permittee sampled the effluent for copper 8 times during the term of Order No. 2018-0002, with effluent concentrations ranging from 4.1 µg/L to 8.3 µg/L. All results were less than the WER-adjusted water quality objective of 31 µg/L. A determination of no reasonable potential has been made based on the MEC of 8.3 µg/L, which is less than the most stringent (WER-adjusted) water quality objective of 31 µg/L, and therefore effluent limitations have not been retained in this Order.

4.3.4. **WQBEL Calculations**

Final WQBELs have been determined using the methods described in section 1.4 of the SIP.

Step 1: To calculate the effluent limits, an effluent concentration allowance (ECA) is calculated for each pollutant found to have reasonable potential using the following equation, which takes into account dilution and background concentrations:

ECA = C + D (C – B),

Where:

C = the applicable water quality criterion (adjusted for effluent hardness and expressed as the total recoverable metal, if necessary)

D = dilution credit (here D= 0, as the discharge does not qualify for a dilution credit)

B = background concentration

Here, no credit for dilution is allowed, which results in the ECA being equal to the applicable criterion (ECA = C).

Step 2: For each ECA based on an aquatic life criterion/objective, the long-term average discharge condition (LTA) is determined by multiplying the ECA by a

factor (multiplier), which adjusts the ECA to account for effluent variability. The multiplier depends on the coefficient of variation (CV) of the data set and whether it is an acute or chronic criterion/objective. Table 1 of the SIP provides pre-calculated values for the multipliers based on the values of the CV. When the data set contains less than 10 sample results, or when 80 percent or more of the data set is reported as ND, the CV is set equal to 0.6. Derivation of the multipliers is presented in section 1.4 of the SIP.

The reasonable potential analysis described in Fact Sheet section 4.3.3 did not identify the need to calculate effluent limitations for any pollutants with aquatic life criteria, therefore Steps 2 and 3 are included to describe the procedure that would be used in the future if reasonable potential is found for any pollutant(s) with aquatic life criteria.

Table F-6. Determination of Long-Term Averages

Pollutant	Units	Acute ECA	Chronic 4-day ECA	Chronic 30-day ECA	Acute ECA Multiplier	Chronic 4-day ECA Multiplier	Chronic 30-day ECA Multiplier	Acute LTA	Chronic 4-day LTA	Chronic 30-day LTA
Cyanide	µg/L	22	5.2	--	0.46	0.66	--	10.1	3.44	--
Ammonia	mg/L	13.89	6.38	2.55	0.32	0.53	0.780	4.5	3.37	1.99

Step 3: WQBELs, including an AMEL and MDEL, are calculated using the most limiting (lowest) LTA. The LTA is multiplied by a factor that accounts for averaging periods and exceedance frequencies of the effluent limitations, and for the AMEL, the effluent monitoring frequency. The sampling frequency is set equal to 4 (n = 4) for the acute criterion and chronic 4-day criterion. The 99th percentile occurrence probability was used to determine the MDEL multiplier and a 95th percentile occurrence probability was used to determine the AMEL multiplier. Since reasonable potential was not found for any pollutants with aquatic life criterion/objectives, no effluent limitations were calculated for this permit.

Step 4: When the most stringent water quality criterion/objective is a human health criterion/objective (as fo dichlorobromomethane and manganese), the AMEL is set equal to the ECA. From Table 2 of the SIP, when CV = 0.6 and n = 4, the MDEL multiplier at the 99th percentile occurrence probability equals 3.11, and the AMEL multiplier at the 95th percentile occurrence probability equals 1.55 (for dichlorobromomethane and manganese). The MDEL for protection of human health is calculated by multiplying the ECA by the ratio of the MDEL multiplier to the AMEL multiplier. Final WQBELs for dichlorobromomethane and manganese are determined as follows.

Table F-7. Determination of Final WQBELs Based on Human Health Criteria

Pollutant	ECA (µg/L)	MDEL/AMEL Multiplier	MDEL (µg/L)	AMEL (µg/L)
Dichlorobromomethane	0.56	1.96	1.10	0.56
Manganese	50	2.01	100	50

4.3.5. Whole Effluent Toxicity (WET)

Effluent limitations for whole effluent toxicity protect the receiving water from the aggregate effect of a mixture of pollutants that may be present in effluent. There are two types of WET tests – acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic test is conducted over a longer period of time and may measure mortality, reproduction, and/or growth.

WET requirements in this Order are derived from the CWA, and the State Policy for Water Quality Control: Toxicity Provisions (Toxicity Provisions). The Toxicity Provisions establishes requirements for water quality and sediment quality that apply to all inland surface waters, enclosed bays, and estuaries and coastal lagoons of the state, including both waters of the United States and surface waters of the state. For compliance with the Toxicity Provisions' water quality objective, this Order requires the Permittee to conduct WET testing for chronic toxicity, as specified in the MRP (Attachment E, section 5).

In-stream Waste Concentration (IWC) (section 5.1.2)**.** The IWC is the concentration of effluent in the receiving water after mixing as determined by the Regional Waterboard. The Permittee has not submitted evidence of a mixing zone at discharge location 002, and therefore the chronic toxicity IWC for this discharge is 100 percent effluent.

Test of Significant Toxicity (TST). This Order requires application of TST for statistical analysis of whole effluent aquatic toxicity data as required by the Toxicity Provisions.

Test of Significant Toxicity Design. The TST's null hypothesis for chronic toxicity is:

H0: Mean response (In-stream Waste Concentration (IWC) in % effluent) ≤ 0.75 mean response (control)

Results are analyzed using the TST approach and an acceptable level of chronic toxicity is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P".

The chronic IWC (in % effluent) for Discharge Point 002 is 100%. The chronic toxicity trigger for Discharge Point 002 is expressed as a null hypothesis (H0) and regulatory management decision (b value) of 0.75 for the chronic toxicity methods in the MRP. The null hypothesis for this discharge is:

H0: Mean response (100% effluent) ≤ 0.75 mean response (control)

Results shall be analyzed using the TST hypothesis testing approach in the MRP. For any chronic aquatic toxicity test method with both lethal and sub-lethal endpoints, the sub-lethal endpoint shall only be required. Compliance with this

chronic toxicity limitation is demonstrated by rejecting the null hypothesis and reporting “Pass” or “P”.

When one MDEL or MMEL is not met, but not two in a calendar month, the Permittee must perform an Additional Routine Monitoring Test as specified in the MRP (Attachment E, section 5). If any combination of two or more MDEL or MMEL are not met within a single calendar month or within two successive calendar months, the Permittee will be required to conduct a TRE, as described by the MRP.

Notification requirements for aquatic toxicity testing include a 24-hour notification requirement if test results do not meet an applicable MDEL or MMEL, per the Toxicity Provisions. Verbal notification of aquatic toxicity test results may be left by voice mail if the Regional Water Board staff person is not immediately available by telephone.

4.3.5.1. **Acute Aquatic Toxicity**

Order No. R1-2018-0002 included an effluent limitation for acute toxicity in accordance with the Basin Plan, which requires that the average survival of test organisms in undiluted effluent for any three consecutive 96-hour bioassay tests be at least 90 percent, with no single test having less than 70 percent survival. Furthermore, the permittee was subject to determination of “Pass” or “Fail” and “Percent (%) Effect” from acute toxicity using the Test of Significant Toxicity (TST) approach. The sensitivity species screening conducted during the term of Order No. R1-2018-0002 concluded that the most sensitive species for acute toxicity testing is the water flea (*Ceriodaphnia dubia)*. Acute aquatic toxicity test results for the term of Order No. R1-2018-0002 are summarized in Table F-8 below:

Table F-8. Summary of Acute Toxicity Results (Water Flea)

Date	Pass/Fail	Percent Effect (Survival)
01/29/2019	Pass	No Effect
02/04/2020	Pass	No Effect
02/04/2022	Pass	No Effect

The Toxicity Provisions identify that a discharge has reasonable potential to cause or contribute to an excursion above the acute aquatic toxicity water quality objectives if any of the acute aquatic toxicity tests results in a ‘fail” at the in-stream waste concentration (IWC), of if any of the acute aquatic toxicity tests have a percent effect at the IWC greater than 10 percent. As shown in Table F-8, acute aquatic toxicity testing did not result in a “fail” and that no resulting percent effect exceeded 10%. As such, it has been determined that

a discharge from this Facility does not have reasonable potential to cause or contribute to an exceedance of the water quality objectives for acute toxicity.

4.3.5.2. Chronic Aquatic toxicity

For Order No. R1-2018-0002, the SIP required the use of short-term chronic toxicity tests to determine compliance with the narrative toxicity objectives for aquatic life in the Basin Plan. Under this monitoring, the Permittee was subject to determination of “Pass” or “Fail” and “Percent (%) Effect” from chronic toxicity using the Test of Significant Toxicity (TST) approach. The sensitivity species screening conducted during the term of Order No. R1-2018-0002 concluded that the most sensitive species for chronic toxicity testing is water flea (*C. dubia)*. Chronic aquatic toxicity test results for the term of Order No. R1-2018-0002 are summarized in Table F-9 below:

Table F-9. Summary of Chronic Toxicity Results (Water Flea)

Date	Pass/Fail	Percent Effect (Survival)	Percent Effect (Growth)
02/07/2019	Fail	No Effect	43.7%
02/24/2020	Fail	No Effect	22.5%
02/04/2022	Pass	No Effect	0.4%

The Toxicity Provisions identify that a discharge has reasonable potential to cause or contribute to an excursion above the chronic aquatic toxicity water quality objectives if any of the chronic aquatic toxicity tests results in a ‘fail” at the IWC, of if any of the chronic aquatic toxicity tests have a percent effect at the IWC greater than 10 percent. As shown in Table F-9, chronic aquatic toxicity testing 10 samples resulted in a “fail” result and 2 samples resulted in a percent effect for growth that exceeded 10% (a negative percent effect indicates that the effluent sample performed better than the control sample). As such, it has been determined that a discharge from this Facility does have reasonable potential to cause or contribute to an exceedance of the water quality objectives for chronic toxicity and corresponding MDEL and MMEL have been included in this Order, as required by the Toxicity Provisions. Attachment E of this Order requires annual chronic WET monitoring to demonstrate compliance with the Toxicity Provisions and the MDEL and MMEL established in this Order.

4.4. Final Effluent Limitation Considerations

4.4.1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) prohibit backsliding in NPDES permits. These anti-

backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order with the exception of the effluent limitation for copper, chlorodibromomethane, and acute toxicity. As previously discussed in sections 4.3.3.5 and 4.3.5.1 of this Factsheet, respectively. The updated effluent data constitutes new information, which permits the removal of effluent limitations consistent with CWA section 402(o)(2)(B). Therefore, the Order does not retain the effluent limitations for acute toxicity, copper, and chlorodibromomethane.

4.4.2. **Antidegradation Policies**

State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality Waters in California (the Antidegradation Policy) requires that disposal of waste into waters of the state be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state. The quality of some waters is higher than established by adopted policies and that higher quality water shall be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires that (1) higher quality water will be maintained until it has been demonstrated to the state that any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in the policies; and (2) any activity that produces a waste or may produce waste or increased volume or concentration of waste and discharges to existing high quality water will be required to meet waste discharge requirements that will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.

Discharges from the Facility are required to maintain protection of the beneficial uses of the receiving water and comply with applicable provisions of the Basin Plan.

As previously discussed in sections 4.4.1. of this Factsheet the updated effluent data constitutes new information, which permits the removal of effluent limitations consistent with CWA section 402(o)(2)(B). Therefore, the Order does not retain the effluent limitations for acute toxicity, copper, and chlorodibromomethane. Therefore, this Order is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater beyond that which was permitted to discharge in accordance with Order No. R1-2018-0002.

State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality Waters in California (the Antidegradation Policy) requires that disposal of waste into waters of the state be regulated to achieve the highest water quality consistent with the maximum benefit to the people of the state. The quality of some waters is higher than established by adopted policies and that higher quality water shall be maintained to the maximum extent possible consistent with the Antidegradation Policy. The Antidegradation Policy requires that (1) higher quality water will be maintained until it has been demonstrated to the state that any change will be consistent with the maximum benefit to the people of the state, will not unreasonably affect present and anticipated beneficial use of the water, and will not result in water quality less than that prescribed in the policies; and (2) any activity that produces a waste or may produce waste or increased volume or concentration of waste and discharges to existing high quality water will be required to meet waste discharge requirements that will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.

4.4.2.1. **Surface Water**

This Order is consistent with applicable federal and state antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater beyond that which was permitted to discharge in accordance with Order No. R1-2018-0002.

4.4.2.2. **Groundwater**

The distribution of recycled water to land at or below hydraulic agronomic rates and where proper irrigation system design and BMPs are implemented is not expected to result in degradation to surface water because the potential for irrigation runoff will be prevented or minimized.

The discharge of recycled water may result in degradation of groundwater, primarily due to salts and nitrogen, Groundwater monitoring is needed to determine if the storage and use of recycled water is impacting groundwater or resulting in the exceedance of applicable water quality objectives.

Degradation of groundwater by constituents in recycled water may be permitted where it has been demonstrated that any change will be consistent with the maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the Basin Plan. In addition, it must be demonstrated that discharges to high quality waters meet waste discharge requirements that result in the best practicable treatment or control of the discharge necessary to avoid pollution or nuisance and assure that the

highest water quality consistent with the maximum benefit to the people of the state is maintained.

Degradation of groundwater from constituents in recycled water after effective source control, treatment, and control may be determined consistent with maximum benefit to the people of the State, provided that the terms of the Basin Plan and Recycled Water Policy are met. Whether the degradation of groundwater consistent with the Basin Plan and Recycled Water Policy requirements is consistent with the maximum benefit to the people of the State is based on consideration of the four factors that are discussed in the following paragraphs:

4.4.2.2.1. Past, present, and probable beneficial uses of the receiving water (as specified in the Basin Plan) have been considered. This Order establishes terms and conditions of discharge to ensure that the discharge does not unreasonably affect present and anticipated beneficial uses of groundwater and surface water. These terms and conditions include use of BPTC, which is a combination of treatment, storage, and application methods that implement the requirements of the Uniform Statewide Recycling Criteria (identified in Attachment I, Finding 1.1.7) and the

Basin Plan, including, but not limited to:

4.4.2.2.1.1. Recycled water will be treated to achieve nitrogen control and disinfected, tertiary level recycled water;

4.4.2.2.1.2. Recycled water will be stored in properly lined ponds;

4.4.2.2.1.3. Recycled water will be applied at agronomic rates reflecting the hydraulic and nutrient requirements of the use area;

4.4.2.2.1.4. The Permittee is responsible for ensuring that recycled water meets the quality standards and associated waste discharge requirements of this Order;

4.4.2.2.1.5. The Permittee must identify and require implementation of BMPs to prevent and minimize the potential for surface runoff or percolation of irrigation water, and to limit public contact with recycled water; and

4.4.2.2.1.6. Discharges to surface waters, other than those authorized in this Order, are prohibited.

4.4.2.3. Economic and social costs, tangible and intangible, of the recycled water usage compared to the benefits have been considered as follows:

4.4.2.3.1. The use of recycled water for irrigation could potentially result in degradation of groundwater or risks to public health if the

recycled water is mismanaged. These environmental/social risks are offset through high quality treatment as described in 4.4.2.2.1.1, above and the Permittee's commitment to implementing BMPs to ensure protection of groundwater and public health.

4.4.2.3.2. The use of recycled water reduces the potential diversion of water from Jones Creek or Green Valley Creek, thus reducing the potential for dewatering these creeks.

4.4.2.3.3. The use of recycled water reduces the diversion of groundwater for irrigation uses, thus reducing the potential for dewatering groundwater and improving water supply availability, and

4.4.2.3.4. The use of recycled water provides a sustainable and drought-resistant source of irrigation water for agricultural and urban uses and conserves potable water.

4.4.2.4. Environmental aspects of the recycled water usage have been considered as follows:

4.4.2.4.1. The potential for groundwater degradation (not exceeding water quality objectives) or runoff to surface waters is offset through high quality treatment provided and the Permittee's commitment to irrigation at hydraulic and nutrient agronomic rates and implementation of BMPs to ensure protection of groundwater and to minimize the potential for surface runoff.

4.4.2.4.2. Groundwater monitoring required by this Order (Section 9) will provide a means to assess whether or not there are impacts on groundwater from the use of recycled water. If groundwater monitoring shows evidence of impacts to groundwater, measures can be taken to reduce or eliminate those impacts through the use of additional BMPs or other measures.

4.4.2.4.3. The use of recycled water in place of both raw and potable water supplies for non-potable uses improves helps to ensure that higher quality water will continue to be available for human uses and for instream uses for fish and wildlife.

4.4.2.5. Implementation of feasible alternative treatment or control methods have been considered as follows:

Degradation of groundwater will not result in water quality less than that prescribed in the Basin Plan because this Order requires the Permittee to implement, and ensure that recycled water users implement, the following treatment and control measures necessary to avoid pollution or nuisance and

maintain the highest water quality consistent with the maximum benefit to the people of the State:

4.4.2.5.1. Implement treatment and use standards necessary to produce disinfected tertiary recycled water, and implement applicable title 22 requirements;

4.4.2.5.2. Apply recycled water at nutrient and hydraulic agronomic rates (whichever is the limiting rate);

4.4.2.5.3. Identify and implement best management practices to minimize the potential for irrigation runoff and for percolation of recycled water to groundwater;

4.4.2.5.4. Develop, maintain, and implement an Operation and Maintenance/Irrigation Management Plan; and

4.4.2.5.5. Employ trained personnel.

The preceding analysis demonstrates that there is sufficient reason to allow for the potential of limited groundwater degradation, provided the terms of the Basin Plan, the Recycled Water Policy, and this Order are met. The Regional Water Board finds that the limited degradation of water that may occur as the result of recycling under the conditions of this Order provides maximum benefit to the people of California, provided recycled water treatment and use are managed to ensure long-term reasonable protection of beneficial uses of waters of the state. By restricting the use of recycled water to those meeting the Uniform Statewide Recycling Criteria, this Order ensures that recycled water is used safely.

Recycled water requirements in Attachment I require the Permittee to implement management measures and BMPs that ensure that all irrigation occurs in a manner that is protective of groundwater and surface water quality.

Table F-10. Summary of Effluent Limitations – Discharge Point 002 to Jones Creek (Monitoring Location EFF-002)

Parameter	Unit	Average Monthly Effluent Limitation	Average Weekly Effluent Limitation	Maximum Daily Effluent Limitation	Instantaneous Minimum Effluent Limitation	Instantaneous Maximum Effluent Limitation	Basis [1]
pH	Standard Units	--	--	--	6.5	8.5	BP
Ammonia Impact Ratio	Ratio	1	--	1	--	--	NAWQC
Cyanide (as CN)[3]	µg/L	4.4	--	7.9	--	--	CTR
Total Coliform Bacteria	MPN/100 mL	--	23 [2]	240	--	--	Title 22
Discharge Rate[3]	%	--	--	--	--	1 [4]	BP
Chronic Toxicity	% Effect	--	--	--	--	50%	BP
Nitrate Nitrogen, Total (as N)	mg/L	10	--	--	--	--	Title 22
Chlorine, Total Residual	mg/L	0.01	--	0.02	--	--	BP
Dichlorobromomethane	µg/L	0.56	--	1.1	--	--	CTR
Manganese	mg/L	50	--	100	--	--	Title 22

Table Notes

1. Definitions of acronyms in Table F-10:

BP - Basin Plan
CFR – 40 C.F.R.part 133
CTR – California Toxics Rule
NAWQC – National Ambient Water Quality Criteria
TP - Toxicity Provisions

TT - Based on the treatment capability of the Facility.

Title 22 - Based on DDW Reclamation Criteria, CCR, Division 4, Chapter 3 (title 22).

2. The number of total coliform bacteria shall not exceed a Most Probable Number (MPN) of 23 per 100 milliliters (mL), in more than one sample in any 30-day period.
3. During the period from October 1 through May 14, discharge of treated wastewater shall not exceed 1 percent (1:100) of the upstream receiving water flow. For purposes of this Order, the flow in the Jones Creek shall be measured in accordance with section 4.1.10 of the Fact Sheet.

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

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD5 and TSS. Restrictions on these pollutants are discussed in section 4.2 of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations for ammonia, pH, and total coliform bacteria that are more stringent than the minimum, federal technology-based requirements but are necessary to meet water quality standards. These requirements are discussed in section 4.3.3 of the Fact Sheet.

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 11.38. The procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR implemented by the SIP, which was approved by U.S. EPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by U.S. EPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 11.21(c)(1). The remaining water quality objectives and beneficial uses implemented by this Order were approved by U.S. EPA and are applicable water quality standards pursuant to section 11.21(c)(2). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

The Regional Water Board has considered the factors in Water Code section 13263, including the provisions of Water Code section 13241, in establishing these requirements.

4.5. **Interim Effluent Limitations**

This Order does not establish interim effluent limitations or compliance schedules.

4.6. **Land Discharge Specifications**

This Order does not authorize discharges of waste to land.

4.7. Recycling Specifications

The Permittee has a recycled water system to irrigate urban and agricultural areas from May 15 through September 30 and other times during the year when weather allows (e.g., dry fall, winter, and spring periods).

4.7.1. Scope and Authority

Section 13263 of the Water Code requires the Regional Water Board to prescribe requirements for proposed discharges, existing discharges, or material change in an existing discharge based upon the conditions of the disposal area or receiving waters upon or into which the discharge is made or proposed. The prescribed requirements shall implement any relevant water quality control plans that have been adopted and shall take into consideration the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241. In prescribing requirements, the Regional Water Board is not obligated to authorize the full waste assimilation capacities of the receiving water.

Water Code section 13241 requires the Regional Water Board to establish water quality objectives in water quality control plans as in its judgment will ensure the reasonable protection of beneficial uses and prevention of nuisance, recognizing that it may be possible for the quality of water to be changed to some degree without unreasonably affecting beneficial uses. The Basin Plan establishes water quality objectives specific to the North Coast Region for the protection of past, present, and probable future beneficial uses of water. Factors required for consideration during development of applicable water quality objectives, such as the characteristics of the hydrographic unit under consideration, economic considerations, and other factors required in accordance with section 13241 were considered during the Basin Planning and adoption process.

Here, the Regional Water Board considered all of these factors when developing the WDRs for the recycled water discharge. Limitations for BOD5, TSS, and pH were scientifically derived to implement water quality objectives that protect beneficial uses. Both beneficial uses and the water quality objectives have been approved pursuant to state law. In addition, discharge prohibitions were included to prohibit the discharge of untreated or partially treated waste, in order to protect public health and prevent nuisance.

The Regional Water Board considered the factors set forth in Water Code section 13241, including the consideration of past, present, and probable future beneficial uses of the receiving water, which the Regional Water Board anticipates to be the same as set forth in the Basin Plan. The Regional Water Board considered the environmental characteristics, including water quality of the Guerneville Hydrologic Subarea of the Russian River Hydrologic Unit, the

coordinated control of all factors which affect water quality in the area, and the need to develop and use recycled water, which this Order supports.

This Order requires quarterly groundwater monitoring conducted to assess impacts to groundwater from the Permittee's recycled water discharge. This Order requires the Discharger to submit a Salts Special Study to evaluate the potential impact to groundwater that will assess whether the tertiary recycled water is in compliance with the groundwater limitations set forth in section 4.5. and 5.2. The Special Study and the requires follow-up actions that ensure the discharge does not result in degradation of groundwater, exceedances of water quality standards, or impacts to the beneficial uses of groundwater within the Guerneville Hydrologic Subarea.

4.7.2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

4.7.2.1. **Beneficial Uses.** Beneficial use designations for groundwater established in the Basin Plan include MUN, AGR, IND, and PRO.

4.7.2.2. **Basin Plan Water Quality Objectives.** The Basin Plan contains narrative objectives for tastes and odors, bacteria, radioactivity, and chemical constituents (including those chemicals that adversely affect agricultural water supply) that apply to groundwater.

4.7.3. Determining the Need for Requirements for Water Recycling

4.7.3.1. The Water Recycling Specifications are established in this Order to conform to requirements contained in the California Code of Regulations, title 22, division 4, chapter 3 for the production of disinfected tertiary recycled water. The Permittee is required to comply with applicable state and local requirements regarding the production and use of recycled water, including requirements of Water Code sections 13500 – 13577 (Water Reclamation) and DDW regulations at title 22, sections 60301 – 60357 of the California Code of Regulations (Water Recycling Criteria). The requirement to comply with title 22 requirements is retained from Order No. R1-2018-0002.

4.7.3.2. **BOD_5 and TSS.** Consistent with Order No. R1-2018-0002, this Order establishes discharge limitations for BOD_5 and TSS based on technology-based effluent limitations that consist of a monthly average of 10 mg/L and a weekly average of 15 mg/L. These levels are technically achievable based on the capability of the tertiary wastewater treatment system. These limits are included in the Order to ensure that discharges to the water recycling system receive proper treatment.

4.7.3.3. **Coliform Bacteria.** Consistent with Order No. R1-2018-0002, this Order includes recycled water specifications for total coliform bacteria that

reflect standards for tertiary treated recycled water in the Basin Plan (Section 4, Implementation Plans) and as adopted by the DDW in title 22 of the CCR and are included to ensure that recycled water quality is protective of human health. Recycled water from this Facility meets the most protective title 22 treatment and disinfection standards and is suitable for the broad range of recycled water uses identified in title 22, including urban land uses.

4.7.3.4. **pH.** Consistent with Order No. R1-2018-0002, this Order includes instantaneous minimum and maximum effluent limitations for pH of 6.0 and 9.0, respectively, based on the technology-based effluent limitations required by U.S. EPA pursuant to 40 C.F.R part 133. These pH limitations are included in the Order to ensure that pH levels are appropriate for the protection of groundwater when discharging to the recycled water system.

4.7.3.5. **Nitrate.** Nitrate is known to cause adverse health effects in humans. The Primary MCL established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals) is 10 mg/L. The Permittee conducted monthly monitoring at Monitoring Location REC-001 from July 2018 through March 2023. Monitoring results ranged from 2.2 to 58 mg/L based on 59 samples. Twenty-eight of the samples exceeded the Primary MCL of 10 mg/L. Because nitrate levels in the effluent have been measured at concentrations higher than 10 mg/L N, the Regional Water Board concludes that discharges from the Facility exhibit reasonable potential to cause or contribute to exceedances of applicable water quality objective for groundwater for nitrate. Therefore, this Order retains the average monthly limitation for nitrate at Discharge Point 003 and 004 equal to 10 mg/L.

4.7.3.6. **Total Dissolved Solids**. The Secondary MCL for total dissolved solids, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals), is 500 mg/L. The Permittee conducted monthly monitoring at Monitoring Location REC-001 from July 2018 through March 2023. Monitoring results ranged from 240 mg/L to 590 mg/L based on 60 samples. Seventeen of the samples exceeded the Primary MCL of 500 mg/L. Because total dissolved solids levels in the effluent have been measured at concentrations higher than 500 mg/L, the Regional Water Board concludes that discharges from the Facility exhibit reasonable potential to cause or contribute to exceedances of applicable water quality objective for groundwater for total dissolved solids. Therefore, this Order retains an average monthly limitation for total dissolved solids at Discharge Point 003 and 004 equal to 500 mg/L.

4.7.3.7. In addition, the MRP in Attachment E of this Order requires ongoing groundwater monitoring for nitrogen, salts and boron to ensure that concentrations of pollutants will not adversely impact beneficial uses of groundwater.

4.7.3.8. This Order is consistent with the maximum benefit to people of the State because it allows continued operation of an existing wastewater treatment system, and it requires monitoring of groundwater to assess potential impacts from the recycled water use.

4.7.4. Recycled Water Requirements and Provisions – Attachment I

4.7.4.1. The water recycling requirements of this Order (including Attachment I) are consistent with the requirements of title 22 of the CCR, the State Water Board Recycled Water Policy, and State Water Board Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use, adopted by the State Water Board on June 7, 2016. Attachment I of this Order contains Recycled Water Findings, Requirements and Provisions to ensure that recycled water is used in a manner that is protective of groundwater and surface water quality.

4.7.4.2. A key to reducing the potential for spills is for the Permittee to establish appropriate BMPs to protect against the possibility of recycled water spills. Thus, the Recycled Water Technical Report Requirements in section 2.3 of Attachment I require the Permittee to recognize the possibility of runoff from recycled water use areas and describe measures, including BMPs that the Permittee will implement to minimize the possibility of runoff.

4.7.4.3. The recycled water requirements of this Order (including Attachment I and section 7 of the MRP) include requirements for dual-plumbed systems, including requirements for cross-connection prevention. The Permittee supplies recycled water to four dual-plumbed recycled water users at the time of permit adoption.

4.7.5. Other Requirements

The Order contains additional specifications that apply to the Facility regardless of the disposal method (surface water discharge or water recycling), including:

4.7.5.1. **Turbidity.** This provision specifies that the turbidity of the filtered wastewater shall not exceed 0.2 NTU more than 5 percent of the time within a 24-hour period and 0.5 NTU at any time, and is based on the definition of filtered wastewater found in title 22 section 60301.320 of the CCR. The title 22 definition is used as a reasonable performance standard to ensure adequate removal of turbidity upstream of disinfection facilities. Properly designed and operated effluent filters will meet this

standard. The point of compliance for the turbidity requirements is a point following the microfilters and before discharge to the chlorine disinfection system.

4.7.5.2. **Disinfection Process Requirements for Chlorine Disinfection System.** Chlorine disinfection process requirements, which include CT value and chlorine residual requirements are retained from Order No. R1-2018-0008. These requirements are necessary to determine compliance with requirements for recycled wastewater systems, established at title 22, division 4, chapter 3 of the CCR and to ensure that the disinfection process achieves effective pathogen reduction.

4.7.5.3. **Storage Ponds**. Storage pond requirements are included in section 4.7.2 of the Order to ensure that future storage ponds are constructed in a manner that protects groundwater and complies with requirements of title 27 of the CCR.

5. RATIONALE FOR RECEIVING WATER LIMITATIONS

5.1. Surface Water

CWA section 303(a-c) requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Regional Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that "[t]he numerical and narrative water quality objectives define the least stringent standards that the Regional [Water] Board will apply to regional waters in order to protect the beneficial uses." The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains Receiving Surface Water Limitations based on the Basin Plan numerical and narrative water quality objectives for biostimulatory substances, bacteria, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity.

5.2. Groundwater

5.2.1. The beneficial uses of the underlying groundwater are municipal and domestic supply, industrial service supply, industrial process supply, agricultural supply, and freshwater replenishment to surface waters.

5.2.2. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

5.2.3. Discharges from the Facility shall not cause exceedance of applicable water quality objectives or create adverse impacts to beneficial uses of groundwater.

5.2.4. The Basin Plan requires that waters designated for use as MUN shall not contain concentrations of chemical constituents in excess of the limits specified in CCR, title 22, division 4, chapter 15, article 4.1, section 64435, and article 5.5, section 64444 and listed in Table 3-2 of the Basin Plan.

5.3. Notification of Interested Parties

The Regional Water Board notified the Permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following posting on the Regional Water Board's Internet site (http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs.shtml).

The public had access to the agenda and any changes in dates and locations through the Regional Waterboard's website (http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs.shtml).

6. RATIONALE FOR PROVISIONS

6.1. Standard Provisions

6.1.1. Federal Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 C.F.R. section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 C.F.R. section 122.42, are provided in Attachment D to the Order. The Permittee must comply with all standard provisions and with those additional conditions that are applicable under 40 C.F.R. section 122.42. The rationale for the special conditions contained in the Order is provided in section 6.2, below.

Sections 122.41(a)(1) and (b) through (n) of 40 C.F.R. establish conditions that apply to all state issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 C.F.R. section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

6.1.2. Regional Water Board Standard Provisions

In addition to the Federal Standard Provisions (Attachment D), the Permittee shall comply with the Regional Water Board Standard Provisions provided in Standard Provisions 6.1.2 of the Order.

6.1.2.1. Order Provision 6.1.2.1 identifies the state's enforcement authority under the Water Code, which is more stringent than the enforcement authority specified in the federal regulations (e.g., 40 C.F.R. sections 122.41(j)(5) and (k)(2)).

6.1.2.2. Order Provision 6.1.2.2 requires the Permittee to notify Regional Water Board staff, orally and in writing, in the event that the Permittee does not comply or will be unable to comply with any Order requirement. This provision requires the Permittee to make direct contact with a Regional Water Board staff person.

6.2. Monitoring and Reporting Program (MRP) Requirements

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements.

6.3. Special Provisions

6.3.1. Reopener Provisions

6.3.1.1. **Standard Revisions (Special Provision 6.3.1.1).** Conditions that necessitate a major modification of a permit are described in 40 C.F.R. section 122.62, which include the following:

6.3.1.1.1. When standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision. Therefore, if revisions of applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such revised standards.

6.3.1.1.2. When new information that was not available at the time of permit issuance would have justified different permit conditions at the time of issuance.

6.3.1.2. **Reasonable Potential (Special Provision 6.3.1.2).** This provision allows the Regional Water Board to modify, or revoke and reissue, this Order if present or future investigations demonstrate that the Permittee governed by this Permit is causing or contributing to excursions above

any applicable priority pollutant criterion or objective, or adversely impacting water quality and/or the beneficial uses of receiving waters.

6.3.1.3. **Species Sensitivity Screening (Special Provision 6.3.1.3).** This provision allows the Regional Water Board to modify this Order if the species sensitivity screening identifies a most sensitive species that is different than the most sensitive species already identified in the Order.

6.3.1.4. **Whole Effluent Toxicity (Special Provision 6.3.1.4).** This Order requires the Permittee to investigate the causes of and identify corrective actions to reduce or eliminate effluent toxicity through a TRE. This Order may be reopened to include a numeric chronic toxicity limitation, new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.

6.3.1.5. **Acute Aquatic Toxicity (Special Provision 6.3.1.5).** This provision allows the Regional Water Board to reopen this Order to include a MDEL and MMEL for acute aquatic toxicity, based on the reevaluation of the reasonable potential for the Permittee to cause or contribute to an exceedance of the acute aquatic toxicity water quality objective.

6.3.1.6. **303(d)-Listed Pollutants (Special Provision 6.3.1.6).** This provision allows the Regional Water Board to reopen this Order to modify existing effluent limitations or add effluent limitations for pollutants that are the subject of any future TMDL action.

6.3.1.7. **Water Effects Ratios (WERs) and Metal Translators (Special Provision 6.3.1.7).** This provision allows the Regional Water Board to reopen this Order if future studies undertaken by the Permittee provide new information and justification for applying a WER or metal translator to a water quality objective for one or more priority pollutants.

6.3.1.8. **Nutrients (Special Provision 6.3.1.8).** This Order contains effluent limitations for ammonia and nitrate. This Order also requires effluent monitoring for nutrients at EFF-002 (ammonia, nitrate, and phosphorus), and REC-001 (ammonia, nitrate, nitrite, and organic nitrogen). This provision allows the Regional Water Board to reopen this Order if future monitoring data indicates the need for new or revised effluent limitations for any of these parameters.

6.3.1.9. **Salt and Nutrient Management Plans (Special Provision 6.3.1.9).** This provision allows the Regional Water Board to reopen this Order if it adopts a regional or subregional SNMP that is applicable to the Permittee.

6.3.1.10. **Title 22 Recycled Water Engineering Report (Special Provision 6.3.1.10).** This provision allows the Regional Water Board to reopen this

Order to adequately implement title 22, if necessary, based on the Permittee's title 22 engineering report.

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

6.3.2.1. **Pollutant Minimization Program (Special Provision 6.3.3.1).** This provision is included in this Order pursuant to section 2.4.5 of the SIP. The Regional Water Board includes standard provisions in all NPDES permits requiring development of a Pollutant Minimization Program when there is evidence that a toxic pollutant is present in the effluent at a concentration greater than an applicable effluent limitation.

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

6.3.3.1. **Operation and Maintenance (Special Provisions 6.3.4.1 and 6.3.4.2).** 40 C.F.R. section 122.41(e) requires proper operation and maintenance of permitted wastewater systems and related facilities to achieve compliance with permit conditions. An up-to-date operation and maintenance manual, as required by Provision 6.3.4.2 of this Order, is an integral part of a well-operated and maintained facility.

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

6.3.4.1. **Wastewater Collection Systems (Special Provision 6.3.5.1)**

6.3.4.1.1. **Statewide General WDRs for Sanitary Sewer Systems.** On December 6, 2022, the State Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2022-0103-DWQ (General Order). The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all SSOs, among other requirements and prohibitions. The Permittee has enrolled under the General Order as required.

6.3.4.2. **Source Control Provisions (Special Provision 6.3.5.2).** Pursuant to Special Provision 6.3.5.2.1, the Permittee shall 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.

40 C.F.R. section 403.8(a) requires POTWs with a total design flow greater than 5 mgd and receiving pollutants which pass through or interfere with the operation of the POTW to establish a POTW Pretreatment Program. The Regional Water Board may also require that a POTW with a design flow of 5 mgd or less develop a POTW Pretreatment Program if the nature or

volume of the industrial influent, treatment process upsets, violations of POTW effluent limitations, contamination of municipal sludge, or other circumstances warrant in order to prevent interference or pass through. The Permittee did not report any known industrial wastes subject to regulation under the NPDES Pretreatment Program being discharged to the Facility in section 4 of EPA Application Form 2A and the permitted flow of the Facility is less than 5 mgd; therefore, the Order does not require the Permittee to develop a pretreatment program that conforms to federal regulations. However, in order to prevent interference with the POTW or pass through of pollutants to the receiving water, the Order requires the Permittee to implement a source control program.

Water Code section 13263.3(d)(1) allows the Regional Water Board to require a discharger to complete and implement a pollution prevention plan if pollution prevention is necessary to achieve a water quality objective, to include, pursuant to Water Code section 13263.3(d)(3), an analysis of the methods that could be used to prevent the discharge of the pollutants into the POTW. These methods can include application of local limits to industrial or commercial dischargers, pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of pollutants to the POTW. The analysis also shall identify sources, or potential sources, not within the ability or authority of the POTW to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible. This Order includes requirements for the Permittee to implement a source identification and reduction program.

A key component of an effective source control program is the identification and location of possible industrial users within the POTW's wastewater collection system. This information is typically obtained by the POTW through industrial waste surveys. The following types of resources can be consulted in compiling a master list of industrial users:

6.3.4.2.1. Water and sewer billing records

6.3.4.2.2. Applications for sewer service

6.3.4.2.3. Local telephone directories

6.3.4.2.4. Chamber of Commerce and local business directories

6.3.4.2.5. Business license records

6.3.4.2.6. POTW and wastewater collection personnel and field observations

6.3.4.2.7. Business associations

6.3.4.2.8. The internet

6.3.4.2.9. Industrial and non-residential sewer use permit records

In addition, the Regional Water Board recognizes that some form of source control is prudent to ensure the efficient operation of the Facility, the safety of Facility staff, and to ensure that pollutants do not pass through the treatment Facility to impair the beneficial uses of the receiving water. The proposed Order includes prohibitions for the discharge of pollutants that may interfere, pass through, or be incompatible with treatment operations, interfere with the use of disposal of sludge, or pose a health hazard to personnel.

6.3.4.3. **Sludge Disposal and Handling Requirements (Special Provision 6.3.5.3).** The disposal or reuse of wastewater treatment screenings, sludges, or other solids removed from the liquid waste stream is regulated by 40 C.F.R. parts 257, 258, 501, and 503, and the State Water Board promulgated provisions of title 27 of the CCR. **Biosolids Management (Special Provision 6.3.5.4).** This provision requires the Permittee to comply with the State's regulations relating to the discharge of biosolids to the land. The discharge of biosolids through land application is not regulated under this Order. The Permittee is required to obtain coverage under the State Water Board Order No. 2004-0012-DWQ, General Waste Discharge Requirements for the Discharge of Biosolids to Land as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities (General Order). Coverage under the General Order, as opposed to coverage under this NPDES permit or individual WDRs, implements a consistent statewide approach to regulating this waste discharge.

6.3.4.4. **Operator Certification (Special Provision 6.3.5.5).** This provision requires the Facility to be operated by supervisors and operators who are certified as required by title 23, section 3680 of the CCR.

6.3.4.5. **Adequate Capacity (Special Provision 6.3.5.6).** The goal of this provision is to ensure appropriate and timely planning by the Permittee to ensure adequate capacity for the protection of public health and water quality.

6.3.5. **Other Special Provisions**

6.3.5.1. **Storm Water (Special Provision 6.3.6.1).** This provision requires the Permittee, if applicable, to obtain coverage under 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). Currently, the Facility is

exempted from these requirements based on the size of the Facility (less than 1 mgd). In addition, all storm water that falls within the Facility is captured, treated, and disposed of within the Facility's NPDES permitted wastewater process.

The Order requires the Permittee to implement and maintain BMPs to control the run-on of storm water to the Facility and to 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 Facility Report to the Regional Water Board.

6.3.6. Compliance Schedules – Not Applicable

6.3.6.1. This Order does not establish interim effluent limitations or schedules of compliance for final numeric effluent limitations.

7. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 C.F.R. sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP), Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

7.1. Influent Monitoring (Table E-2)

7.1.1. Influent monitoring requirements at Monitoring Location INF-001 for BOD_5 and TSS are retained from Order No. R1-2018-0002 and are necessary to determine compliance with the Order's 85 percent removal requirement for these parameters.

7.1.2. Influent monitoring requirements for flow at Monitoring Location INF-001 are retained from Order No. R1-2018-0002 and are necessary to determine compliance with Discharge Prohibition 3.8.

7.2. Effluent Monitoring

Effluent monitoring requirements are necessary to determine compliance with prohibitions and/or effluent limitations established by the Order. Monitoring at Monitoring Locations INT-001B (BOD_5), INT-001C, and EFF-002 is necessary to demonstrate compliance with effluent limitations and demonstrate whether or not the discharge poses reasonable potential for a pollutant to exceed any numeric or narrative water quality objectives.

7.3. Monitoring Location INT-001B (Table E-3)

7.3.1. Monitoring frequencies and monitoring for BOD_5 and turbidity have been retained from Order No. R1-2018-0002, at Monitoring Location INT-001B, following the microfilters and prior to the chlorine contact chamber.

Title 22 requirements for turbidity apply at the end of the filtration process. Effluent monitoring requirements for BOD_5 are evaluated at this location due to laboratory interferences that occur in the BOD_5 analytical test due to the need to use thiosulfate to remove chlorine from the sample. This location is consistent with the objective of measuring the effectiveness of the treatment process in removing carbonaceous materials which are associated with oxygen demand.

7.4. Effluent Monitoring

7.4.1. Monitoring Location INT-001C (Table E-4)

7.4.1.1. The monitoring location Discharge Point 001 (EFF-001) has been modified, and is now called INT-001C. This is a more accurate description of the monitoring location because effluent discharged to the 3.25 million gallon treated effluent storage pond is not considered a discharge to Waters of the State.

7.4.1.2. Effluent monitoring frequencies and sample types for flow, TSS, total coliform bacteria, chlorine residual, and disinfection CT, have been retained from Order No. R1-2018-0002.

7.4.2. Monitoring Location EFF-002 (Table E-5)

7.4.2.1. Effluent monitoring frequencies and sample types for flow, dilution rate, pH, chlorine residual, dissolved oxygen, temperature, hardness, cyanide, Haloacetic acids, dichlorobromomethane, ammonia, nitrate, phosphorus, and CTR priority pollutants, have been retained from Order No. R1-2018-0002.

7.4.2.2. Effluent monitoring for *E. coli* bacteria has been established at Monitoring Location EFF-002 in this Order to inform Regional Water Board Staff of the reasonable potential for the Permittee to exceed water quality objectives when discharging to Jones Creek.

7.4.2.3. Effluent monitoring for Manganese has been established at Monitoring Location EFF-002 in this Order to determine compliance with effluent limitations for Manganese.

7.4.2.4. This Order allows the Permittee the option to analyze for cyanide as total or weak acid dissociable cyanide using protocols specified in 40 C.F.R. Part 136, or an equivalent method in the latest Standard Method edition.

7.4.2.5. Effluent monitoring data collected during the term of Order No. R1-2018-0002 indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives for copper and chlorodibromomethane. Therefore, this Order discontinues effluent monitoring requirements for copper and chlorodibromomethane.

7.4.2.6. This Order includes a monitoring requirement for Haloacetic Acids to be conducted during the months of October and March during the first year of the permit term. Haloacetic acids are known to cause adverse health effects in humans. For waters designated as domestic or municipal supply, which the Russian River and its tributaries are designated, the Basin Plan (Chapter 3) adopts the MCLs, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals), as applicable water quality criteria. This requirement is being retained to determine whether or not the discharge has reasonable potential exceed the title 22 drinking water objective. If monitoring during the first year of the permit term demonstrates that there is no reasonable potential for Haloacetic Acids, the Permittee will not be required to conduct further monitoring. If the monitoring reveals the presence of Haloacetic Acids at concentrations that exceed the water quality objective or concentrations that are high enough to raise concern that additional monitoring may reveal reasonable potential for Haloacetic Acids, then the Permittee will be required to continue monitoring semi-annually to collect sufficient data to make a reasonable potential determination.

7.4.2.7. The once per permit term CTR priority pollutant monitoring must be performed in time to submit the data with the Report of Waste Discharge; therefore, Table Note 11 in Table E-5 of the MRP specifies that this monitoring must be completed by **February 1, 2027.**

7.4.2.7.1. This Order requires more frequent monitoring for CTR pollutants that have been found to have reasonable potential to exceed water quality objectives, including for copper, and dichlorobromomethane.

7.4.2.8. This Order eliminates the effluent monitoring requirement for title 22 pollutants due to the fact that monitoring during the previous permit term demonstrated that cyanide and nitrate are the only two title 22 pollutants that exhibited reasonable potential to exceed applicable water quality objectives. The Regional Water Board finds that this Order's effluent monitoring requirement for the title 22 pollutants that have been identified in the effluent, namely cyanide and nitrate will provide sufficient information to characterize the impacts of the discharge to surface water.

7.5. Toxicity Testing Requirements

Effluent monitoring data collected during the term of Order No. R1-2018-0002 indicates that the discharge does not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives for acute aquatic toxicity. Therefore, this Order discontinues annual effluent monitoring requirements for acute aquatic toxicity. Effluent data indicates that the discharge exhibits reasonable potential to cause or contribute to an exceedance of water quality objectives for chronic aquatic toxicity. This Order includes annual effluent monitoring requirements for chronic aquatic toxicity, as required by the Toxicity Provisions.

In addition to routine chronic toxicity monitoring, this Order requires the Permittee to maintain and update its TRE Work Plan, in accordance with appropriate U.S. EPA guidance to ensure that the Permittee has a plan to immediately move forward with the initial tiers of a TRE in the event effluent toxicity is encountered in the future. The TRE is initiated by evidence of a pattern of toxicity demonstrated through routine and MMEL testing for chronic aquatic toxicity.

The Toxicity Provisions allow the Regional Water Broad to use a species sensitivity screening generated within ten years prior to the renewal of this Permit when the data are representative of the effluent, the Regional Water Board accepts use of the data, the data are analyzed using the TST, and the data are from chronic aquatic testing of, at minimum, one vertebrate, one invertebrate, and one plant/algae from Table 1 of Section IV.B.1.b. of the Toxicity Provisions. The Regional Water Board has determined that the species sensitivity screening conducted between January 23, 25, and 28 of 2019, meets the above requirements, and the species used for chronic toxicity monitoring shall be *Ceriodaphnia dubia*.

7.6. Recycled Water Monitoring Requirements

7.7. Recycling Monitoring Requirements (Table E-6) and Production Requirements (Table E-7)

7.7.1. This Order requires the Permittee to comply with applicable state and local requirements regarding the production and use of recycled water.

7.7.2. Recycled water monitoring requirements at Monitoring Location REC-001 for flow, pH, nitrate, nitrite, ammonia, organic nitrogen, total dissolved solids, sodium, and visual observations have been retained from Order No. R1-2018-0002.

7.7.3. Recycled use requirements in Attachment I, Section 2 have been updated to provide clarity and to match requirements in the approved Title 22 engineering report for the Forestville Water District recycled water fill station.

7.8. Receiving Water Monitoring

7.8.1. Surface Water Monitoring (Table E-9)

7.8.1.1. Receiving water monitoring is required to demonstrate compliance with the Receiving Water Limitations.

7.8.1.2. Monitoring requirements at Monitoring Locations RSW-001 and RSW-002 for flow, pH, hardness, temperature, turbidity, dissolved oxygen, ammonia, nitrate, phosphorus, and CTR priority pollutants have been retained from Order No. R1-2018-0002.

7.8.1.3. The once per permit term CTR priority pollutant monitoring must be performed in time to submit the data with the Report of Waste Discharge; therefore, Table Note 11 in Table E-5 of the MRP specifies that this monitoring must be completed by **February 1, 2027**.

7.8.1.4. Receiving water monitoring for *E. coli* bacteria has been established in this Order to determine background levels of *E. coli* in the receiving water and to determine compliance with bacteria water quality objectives.

7.8.2. Groundwater Monitoring (Table E-10)

7.8.2.1. Monitoring requirements at Monitoring Locations MW-001 through MW-003 for depth to groundwater, groundwater elevation, nitrate, nitrite, total nitrogen, boron, sodium, and total dissolved solids have been retained from Order No. R1-2018-0002.

7.8.2.2. The Recycled Water Policy requires the development of salt and nutrient management plans (SNMP) for groundwater basins in the State. In the absence of a regional or sub-regional SNMP effort, the regional water boards have the discretion to require groundwater monitoring and/or detailed antidegradation analyses to determine whether or not groundwater is being or has the potential of being impacted by the storage and use of recycled water.

7.8.2.3. Groundwater monitoring required by this Order will provide the necessary data to facilitate management of salts and nutrients at the recycled water use sites until a SNMP is developed and implemented. Regional Water Board staff's evaluation of groundwater data in the vicinity of the Permittee's recycled water storage and use sites shows that groundwater is generally shallow (<30 feet deep), high quality, and used for domestic water supply. The data available in the state's Groundwater Ambient Monitoring Assessment (GAMA) database indicates that areas of high-quality groundwater exist in the Wilson Grove Formation Highlands Groundwater Basin. However, areas throughout the basin are steadily trending towards degradation for salts and nutrients since the 1960s. The Wilson Grove formation that is prevalent through

much of the area is a GAMA priority groundwater basin and is identified as a hydrologically vulnerable basin with areas of highly permeable geology making the underlying groundwater at risk for contamination from human activities. Recycled water is applied at hydraulic and nitrogen agronomic rates at all sites during the normal irrigation season, however, recycled water is applied at greater than agronomic rates on several vineyard sites that utilize recycled water for frost protection. Additionally, there are no agronomic rates for salts and metals.

7.8.2.4. **Groundwater depth and elevation**. This order retains the monitoring requirements for depth to groundwater and elevation to ensure there is separation of groundwater from the recycled water discharge and to determine groundwater flow direction.

7.8.2.5. **Total Nitrogen and Nitrogen Compounds**. Untreated domestic wastewater contains ammonia nitrogen. Nitrification is a biological process that converts ammonia to nitrite and nitrate. Denitrification is a process that converts nitrate to nitrogen gas, which is then released to the atmosphere. Inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving groundwater and inadequate or incomplete denitrification may result in the discharge of nitrate to the receiving groundwater. The Facility is designed to use nitrification to remove ammonia from the waste stream and denitrification to reduce nitrate in the waste stream culminating in an overall reduction in total nitrogen. Additionally, monitoring for nitrogen compounds will address the potential for ammonia and organic nitrogen to convert to nitrate and nitrite in within the groundwater table.

7.8.2.5.1. **Nitrate**. The MCL for nitrate (10 mg/L as N) is applicable as a water quality criterion. Natural background concentrations of nitrate in groundwater are typically less than 1 mg/L. The Permittee sampled its discharge at Monitoring Location REC-001 between July 2018 through March 2023. Monitoring results ranged from 2.2 mg/L to 58 mg/L based on 55 samples with an average of 11 mg/L. Because nitrate levels in the effluent have been measured at concentrations greater than background, the Regional Water Board concludes that discharges from the Facility have a reasonable potential to cause or contribute to degradation of groundwater due to discharges of nitrate. Therefore, the quarterly monitoring requirement for nitrate is retained from the previous Order No. R1-2018-0002.

7.8.2.6. **Nitrite**. Nitrite is known to cause adverse health effects in humans. The Primary MCL established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals) is 1.0 mg/L. The Permittee conducted monthly monitoring at Monitoring Location REC-001 from July 2018

through March 2023. Effluent monitoring results ranged from <0.4 to 5.4 mg/L N based on 60 samples. Eight of the samples exceeded the Primary MCL of 1.0 mg/L N. The Permittee conducted quarterly groundwater monitoring at monitoring location MW-001, MW-002, and MW-003 from July 2022 through May 2023. All 12 groundwater monitoring results were recorded as <0.40 mg/L N. Because Nitrite levels in the effluent have been measured at concentrations higher than 1.0 mg/L N and all 12 receiving water samples were recorded below the primary MCL. Therefore, the monitoring requirement for Nitrite is retained from Order No. R1-2018-0002.

7.8.2.7. **Boron**. The U.S.E.P.A. IRIS Reference Dose (RfD) for drinking water levels for boron (1.4 mg/L) is applicable as a water quality criterion. The Permittee sampled its discharge at Monitoring Location REC-001 between July 2018 through March 2023. Monitoring results ranged from <0.10 mg/L to 23 mg/L based on 58 samples with an average of 0.8 mg/L. Therefore, the quarterly monitoring requirements are retained from the previous Order No. R1-2018-0002.

7.8.2.8. **Sodium**. Consumers of water do not want to drink water that tastes or smells bad. Groundwaters are designated for use as domestic or municipal supply (MUN). Therefore, the Basin Plan establishes applicable taste and odor thresholds for sodium (30 - 60 mg/L). The Permittee sampled its discharge at Monitoring Location REC-001 between July 2018 through March 2023. Monitoring results ranged from 280 mg/L to 30 mg/L based on 60 samples with an average of 95.3 mg/L. Sodium levels in the effluent have been measured at concentrations greater than the Taste and Odor Threshold. This Order retains the quarterly monitoring for sodium at Discharge Point 003 and 004.

7.8.2.9. **Salts (Total Dissolved Solids)**. The Secondary MCL for total dissolved solids, established by DDW for the protection of public water supplies at title 22 of the CCR, sections 64431 (Inorganic Chemicals) and 64444 (Organic Chemicals), is 500 mg/L. The Permittee conducted monthly monitoring at Monitoring Location REC-001 from July 2018 through March 2023. Monitoring results ranged from 240 mg/L to 590 mg/L based on 60 samples. Seventeen of the samples exceeded the Primary MCL of 500 mg/L. Total dissolved solids levels in the effluent have been measured at concentrations higher than 500 mg/L. Additionally, groundwater monitoring results showed elevated levels of TDS in downgradient wells (ranging from 440 to 460 mg/L), that exceed TDS levels measured in upgradient wells (ranging from 130 to 220 mg/L). Because TDS levels in the effluent have been measured at concentrations greater than background, the Regional Water Board concludes that discharges from the Facility have a reasonable potential to cause or contribute to degradation of groundwater due to discharges

of TDS. Therefore, this Order retains an average monthly monitoring requirement for total dissolved solids at Discharge Point 003 and 004.

7.8.2.10. Groundwater monitoring is necessary to evaluate whether or not the use of recycled water at greater than agronomic rates is impacting groundwater. Furthermore, the Regional Water Board has the unique challenge of protecting and preserving high quality groundwater and its beneficial uses while enabling sustainable practices, such as use of recycled water. Groundwater monitoring is a tool to identify groundwater issues and modify practices, as necessary, to allow the continued use of recycled water and protect groundwater.

7.9. Other Monitoring Requirements

7.9.1. **Filtration Process Monitoring.** Filtration monitoring requirements are retained from Order No. R1-2018-0002. Monitoring of the surface loading rate at Monitoring Location INT-001 is necessary to demonstrate compliance with technology requirements set forth in DDW's Alternative Treatment Technology Report for Recycled Water (September 2014 or subsequent). Monitoring of effluent turbidity of the tertiary filters at Monitoring Location INT-001 is required to demonstrate compliance with section 60301.320 of title 22 CCR filtration requirements for disinfected tertiary recycled water.

7.9.2. **Disinfection Process Monitoring for Chlorine Disinfection System.** Chlorine disinfection system monitoring requirements at Monitoring Location INT-001C (previously called EFF-001) are retained from Order No. R1-2018-0002, and included to ensure effective pathogen reduction.

7.9.3. **Visual Monitoring.** Visual monitoring for effluent (Monitoring Location EFF-002) and receiving water (Monitoring Locations RSW-001 and RSW-002) requirements are retained from Order No. R1-2018-0002 and are necessary to ensure compliance with receiving water limitations in section 5 of the Order.

7.9.4. **Storage Pond Monitoring.** Storage pond monitoring requirements for existing and future storage ponds (PND-001, PND-002, etc.) are retained for consistency with requirements in the Statewide Recycled Water General Order to ensure that ponds are properly operated and maintained to protect pond berms and to avoid overflows.

7.9.5. **Sludge Monitoring.** New sludge monitoring requirements at Monitoring Location BIO-001 serve as a basis for the Permittee to develop the Sludge Handling and Disposal Activity Report that is required as part of the Annual Report pursuant to section 11.5.7 of the MRP.

7.9.6. **Discharge Monitoring Report Quality Assurance (DMR-QA) Study Program.** Under the authority of section 308 of the CWA (33 U.S.C. § 1318), U.S. EPA requires major permittees under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Permittee can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by U.S. EPA to the State Water Board, the Permittee can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Permittee shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to U.S. EPA's DMR-QA Coordinator and Quality Assurance Manager.

7.9.7. **Accelerated Monitoring Requirements.** Tables E-3, E-4, E-5, and E-6 of the MRP include accelerated monitoring requirements for parameters that are required to be monitored daily, weekly, and monthly.

7.9.8. **Flow Monitoring.** Section 1.4 of the MRP requires proper installation, calibration, operation, and maintenance of flow metering devices.

7.9.9. **Spill Notification.** The MRP that is part of this Order establishes requirements for reporting spills and unauthorized discharges, with the exception of SSOs which must be reported in accordance with the requirements of State Water Board Order No. 2022-0103-DWQ.

7.9.10. **Notification and Reporting for Recycled Water Spills.** Section 11.7.3 of the MRP includes reporting requirements for spills of secondary treated water in excess of 50,000 gallons. This requirement implements Water Code section 13529.2.

7.9.11. **Disaster Preparedness Assessment Report and Action Plan (MRP section 11.4.2)**. Natural disasters, extreme weather events, sea level rise, and shifting precipitation patterns, some of which are projected to intensify due to climate change, have significant implications for wastewater treatment and operations. Some natural disasters are expected to become more frequent and extreme according to the current science on climate change. In order to ensure that Facility operations are not disrupted, compliance with conditions of this Order are achieved, and

receiving waters are not adversely impacted by permitted and unpermitted discharges, this Order requires the Permittee to submit a Disaster Preparedness Assessment Report and Action Plan and implement the necessary control measures in accordance with an approved schedule of implementation.

7.9.12. **Pathogen Special Study (MRP Section 11.4.3).** On August 7, 2018, the State Water Board adopted Part 3 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California – Bacteria Provisions and a Water Quality Standards Variance Policy (Statewide Bacteria Provisions), which establishes water quality objectives for reasonable protection of people that recreate within all surface waters, enclosed bays, and estuaries of the state that have the water contact recreation beneficial use (REC-1). Tertiary recycled water, such as that produced by the Facility, is fully disinfected and is not considered a source of pathogens of human origin; however, the Regional Water Board is uncertain about the potential for regrowth of pathogens of human origin, particularly after storage. This Order requires the Permittee to conduct a study to assess the Facility's ability to comply with the bacteria water quality objective in section 5.1.21 of the Order and to submit a report that summarizes the results of the Permittee's ability to comply with the bacteria water quality objective and, if necessary, a plan and schedule for achieving compliance with the bacteria water quality objective. The plan of compliance should identify any other studies necessary to demonstrate compliance with the bacteria water quality objective (i.e., study to determine whether the discharge includes pathogens of human origin). The Regional Water Board will use the results of the study to determine whether water quality-based limitations are required to ensure achievement of the applicable bacteria water quality objectives.

7.9.13. **Salts Special Study (MRP Section 11.4.4).** The Order requires the Discharger to submit a Special Study to Evaluate the Potential Impact to Groundwater that will assess whether the tertiary recycled water is in compliance with the groundwater limitations set forth in section 4.5. and 5.2. If the Special Study concludes that the discharge has the potential to violate the groundwater limitations, the Order may be reopened to consider, as appropriate, the addition of effluent limitations for sodium and/or TDS. If the Special Study concludes that the discharge does not have the reasonable potential to violate the groundwater limitations, new effluent limitations may not be needed. The Special Study and the required follow-up actions will ensure that the discharge does not result in degradation of groundwater, exceedances of water quality standards, or impacts to the beneficial uses of groundwater within the Guerneville Hydrologic Subarea.

8. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, North Coast Region (North Coast Regional Water Board) has considered the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the Forestville Water District Wastewater Treatment Facility. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

8.1. Written Comments

Interested persons were invited to submit written comments concerning these tentative WDRs as provided through the notification process. Comments were due to the Regional Water Board Executive Office electronically via e-mail to NorthCoast@waterboards.ca.gov or on disk (CD or DCD) in Portable Document Format (PDF) file in lieu of paper-sourced documents. The guidelines for electronic submittal of documents can be found on the Regional Waterboard website(http://www.waterboards.ca.gov/northcoast).

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on **January 11, 2023**.

8.2. Public Hearing

The Regional Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	**April 4-5, 2024**
Time:	9:00 a.m. or as announced in the Regional Water Board's agenda
Location:	Regional Water Board Hearing Room 5550 Skylane Boulevard, Suite A Santa Rosa, CA 95403

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony, pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

Please be aware that dates and venues may change. The North Coast Regional Waterboard web address is http://www.waterboards.ca.gov/northcoast where you can access the current agenda for changes in dates and locations.

8.3. Reconsideration of Waste Discharge Requirements

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following.

The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see the at Water Quality Petitions Website (http://www.waterboards.ca.gov/public_notices/petitions/waterquality/wqpetition_instr.shtml)

8.4. Information and Copying

The Report of Waste Discharge, other supporting documents, and comments received are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (707) 576-2220.

8.5. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this Facility, and provide a name, address, and phone number.

8.6. Additional Information

Requests for additional information or questions regarding this order should be directed to Sabrina Cegielski at Sabrina.Cegielski@waterboards.ca.gov or (707) - 543-7126.

Table F-11. Wastewater Treatment Facility RPA Summary

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
Acenaphthene	ug/L	< 0.025	No Data	1200	N/A	N/A	1200	2700	N/A	No
Acenaphthylene	ug/L	< 0.025	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Alachlor	ug/L	< 0.00056	No Data	2	76	N/A	N/A	N/A	2	No
Aldrin	ug/L	< 0.0056	No Data	0.00013	3	N/A	0.00013	0.00014	N/A	Ud
alpha-Endosulfan	ug/L	< 0.00022	No Data	0.056	0.22	0.056	110	240	N/A	No
Ammonia (as N)	mg/L	13	0.2	3.18228	5.615107	3.18228	N/A	N/A	N/A	Yes[6]
Anthracene	ug/L	< 0.021	No Data	9600	N/A	N/A	9600	110000	N/A	No
Arsenic, Total Recoverable	ug/L	0.93	No Data	10	340	150	N/A	N/A	10	Ud
Benzene	ug/L	< 0.051	No Data	1	N/A	N/A	1.2	71	1	No
Benzidine	ug/L	< 2.7	No Data	0.00012	N/A	N/A	0.00012	0.00054	N/A	Ud
Benzo(a)anthracene	ug/L	< 0.094	No Data	0.0044	N/A	N/A	0.0044	0.049	N/A	Ud
Benzo(a)pyrene	ug/L	< 0.032	No Data	0.0044	N/A	N/A	0.0044	0.049	0.2	Ud
Benzo(ghi)perylene	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Benzo(k)fluoranthene	ug/L	< 0.031	No Data	0.0044	N/A	N/A	0.0044	0.049	N/A	Ud
Beryllium, Total Recoverable	ug/L	< 0.048	No Data	4	N/A	N/A	N/A	N/A	4	No
beta-BHC	ug/L	< 0.0062	No Data	0.014	N/A	N/A	0.014	0.046	N/A	No
beta-Endosulfan	ug/L	< 0.00092	No Data	0.056	0.22	0.056	110	240	N/A	No
Bis (2-Chloroethoxy) Methane	ug/L	< 4.2	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Bis (2-Chloroethyl) Ether	ug/L	< 0.01	No Data	0.031	N/A	N/A	0.031	1.4	N/A	No

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
Bis (2-Chloroisopropyl) Ether	ug/L	< 0.044	No Data	1400	N/A	N/A	1400	170000	N/A	No
Bis (2-Ethylhexyl) Phthalate	ug/L	< 0.17	No Data	1.8	N/A	N/A	1.8	5.9	4	No
Bromoform	ug/L	< 0.066	No Data	4.3	N/A	N/A	4.3	360	80	No
Butylbenzyl Phthalate	ug/L	< 0.48	No Data	3000	N/A	N/A	3000	5200	N/A	No
Cadmium, Total Recoverable	ug/L	< 0.066	--	3.4	N/A	3.4	N/A	N/A	5	No
Carbon tetrachloride	ug/L	< 0.069	No Data	0.25	N/A	N/A	0.25	4.4	0.5	No
Chlordane	ug/L	< 0.0046	No Data	0.00057	2.4	0.0043	0.00057	0.00059	0.1	Ud
Chlorobenzene	ug/L	< 0.05	No Data	70	N/A	N/A	680	21000	70	No
Chlorodibromomethane	ug/L	0.14	No Data	0.41	N/A	N/A	0.41	34	80	Ud
Chloroethane	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Chloroform	ug/L	18	No Data	80	N/A	N/A	N/A	470	80	Ud
Chromium (total)	ug/L	< 0.77	No Data	50	N/A	N/A	N/A	N/A	50	No
Chrysene	ug/L	< 0.046	No Data	0.0044	N/A	N/A	0.0044	0.049	N/A	Ud
Copper, Total Recoverable	ug/L	8.3	--	32	21	32	1300	N/A	1000	No
Cyanide, Total (as CN)	ug/L	11	3.4	5.2	22	5.2	700	220000	150	Yes
delta-BHC	ug/L	< 0.0014	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Dibenzo(a,h)anthracene	ug/L	< 0.046	No Data	0.0044	N/A	N/A	0.0044	0.049	N/A	Ud
Dichlorobromomethane	ug/L	2	No Data	0.56	N/A	N/A	0.56	46	80	Yes
Diethyl Phthalate	ug/L	< 0.074	No Data	23000	N/A	N/A	23000	120000	N/A	No

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
Dimethyl Phthalate	ug/L	< 0.054	No Data	313000	N/A	N/A	313000	2900000	N/A	No
Di-n-butyl Phthalate	ug/L	< 0.034	No Data	2700	N/A	N/A	2700	12000	N/A	No
Di-n-octyl Phthalate	ug/L	< 0.034	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Endosulfan Sulfate	ug/L	< 0.00066	No Data	110	N/A	N/A	110	240	N/A	No
Endrin	ug/L	< 0.00036	No Data	0.036	0.086	0.036	0.76	0.81	2	No
Endrin Aldehyde	ug/L	< 0.0011	No Data	0.76	N/A	N/A	0.76	0.81	N/A	No
Ethylbenzene	ug/L	< 0.05	No Data	300	N/A	N/A	3100	29000	300	No
Fluoranthene	ug/L	< 0.034	No Data	300	N/A	N/A	300	370	N/A	No
Fluorene	ug/L	< 0.032	No Data	1300	N/A	N/A	1300	14000	N/A	No
gamma-BHC	ug/L	< 0.009	No Data	0.019	0.95	0.08	0.019	0.063	0.2	No
Heptachlor	ug/L	< 0.00082	No Data	0.00021	0.52	0.0038	0.00021	0.00021	0.01	Ud
Heptachlor Epoxide	ug/L	< 0.0005	No Data	0.0001	0.52	0.0038	0.0001	0.00011	0.01	Ud
Hexachlorocyclopentadiene	ug/L	< 2.4	No Data	50	N/A	N/A	240	17000	50	No
Indeno (1,2,3-cd) Pyrene	ug/L	< 0.032	No Data	0.0044	N/A	N/A	0.0044	0.049	N/A	Ud
Isophorone	ug/L	< 3.3	No Data	8.4	N/A	N/A	8.4	600	N/A	No
Manganese	ug/L	51	No Data	50	N/A	N/A	N/A	100	50	Yes
Methyl Chloride	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Methylene Chloride	ug/L	< 0.052	No Data	4.7	N/A	N/A	4.7	1600	5	No
Naphthalene	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Nickel, Total Recoverable	ug/L	3.7	--	74	660	74	610	4600	100	No
Nitrate (as N)	mg/L	16	0.96	10	N/A	N/A	10	N/A	10	Yes
Nitrite (as N)	mg/L	0.69	No Data	1	N/A	N/A	N/A	N/A	1	No

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
Nitrobenzene	ug/L	< 0.27	No Data	17	N/A	N/A	17	1900	N/A	No
N-Nitrosodi-n-Propylamine	ug/L	< 3.2	No Data	0.005	N/A	N/A	0.005	1.4	N/A	Ud
PCB(1)	ug/L	< 0.04	No Data	0.00017	N/A	0.014	0.00017	0.00017	0.5	Ud
Phenanthrene	ug/L	< 0.027	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Phenol, Single Compound	ug/L	< 0.09	No Data	21000	N/A	N/A	21000	4600000	N/A	No
Phosphorus, Total (as P)	mg/L	3.9	0.91	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Pyrene	ug/L	< 0.028	No Data	960	N/A	N/A	960	11000	N/A	No
Silver, Total Recoverable	ug/L	< 0.043	--	100	N/A	N/A	N/A	N/A	100	No
Sulfide (as S)	mg/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Sulfite (as SO3)	mg/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
Thallium, Total Recoverable	ug/L	< 0.042	No Data	1.7	N/A	N/A	1.7	6.3	2	No
Toxaphene	ug/L	< 0.004	No Data	0.0002	0.73	0.0002	0.00073	0.00075	3	Ud
trans-1,2-Dichloroethylene	ug/L	< 0.06	No Data	10	N/A	N/A	700	140000	10	No
Trichloroethylene	ug/L	< 0.06	No Data	2.7	N/A	N/A	2.7	81	5	No
Trichlorofluoromethane	ug/L	< 0.047	No Data	150	N/A	N/A	0.19	N/A	150	No
Vinyl Chloride	ug/L	< 0.07	No Data	0.5	N/A	N/A	2	525	0.5	No
1,1,1-Trichloroethane	ug/L	< 0.05	No Data	200	N/A	N/A	N/A	N/A	200	No
1,1,2,2-Tetrachloroethane	ug/L	< 0.11	No Data	0.17	N/A	N/A	0.17	11	1	No

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
1,1,2-Trichloroethane	ug/L	< 0.08	No Data	0.6	N/A	N/A	0.6	42	5	No
1,1-Dichloroethane	ug/L	< 0.06	No Data	5	N/A	N/A	N/A	N/A	5	No
1,1-Dichloroethylene	ug/L	< 0.086	No Data	0.057	N/A	N/A	0.057	3.2	6	Ud
1,2,4-Trichlorobenzene	ug/L	< 0.44	No Data	5	N/A	N/A	35	70	5	No
1,2-Dichlorobenzene	ug/L	< 5.4	No Data	600	N/A	N/A	2700	17000	600	No
1,2-Dichloropropane	ug/L	< 0.055	No Data	0.52	N/A	N/A	0.52	39	5	No
1,2-Diphenylhydrazine	ug/L	< 2	No Data	0.04	N/A	N/A	0.04	0.54	N/A	Ud
1,3-Dichlorobenzene	ug/L	< 5.9	No Data	400	N/A	N/A	400	2600	N/A	No
1,3-Dichloropropylene	ug/L	< 0.055	No Data	0.5	N/A	N/A	10	1700	0.5	No
1,4-Dichlorobenzene	ug/L	< 4.9	No Data	5	N/A	N/A	400	2600	5	No
2,3,7,8-TCDD (Dioxin)	ug/L	< 2.04	No Data	1.3E-08	N/A	N/A	0.000000013	1.4E-08	0.00003	Ud
2,4,6-Trichlorophenol	ug/L	< 0.024	No Data	2.1	N/A	N/A	2.1	6.5	N/A	No
2,4-Dinitrotoluene	ug/L	< 0.033	No Data	0.11	N/A	N/A	0.11	9.1	N/A	No
2,6-Dinitrotoluene	ug/L	< 0.026	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
2-Chloroethylvinyl Ether	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
2-Nitrophenol	ug/L	< 12	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
3,3-Dichlorobenzidine	ug/L	< 0.04	No Data	0.04	N/A	N/A	0.04	0.077	N/A	Ud
4,4-DDD	ug/L	< 0.00022	No Data	0.00083	1.1	0.001	0.00083	0.00084	N/A	No
4,4-DDE	ug/L	< 0.00036	No Data	0.00059	1.1	0.001	0.00059	0.00059	N/A	No
4,4-DDT	ug/L	< 0.00034	No Data	0.00059	1.1	0.001	0.00059	0.00059	N/A	No
4-Bromophenyl Phenyl Ether	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo

Constituent Name	Units	MEC[1]	B	C	CMC	CCC	Water & Org.[2]	Org. Only[3]	MCL	RP[4,5]
4-Chloro-3-methylphenol	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
4-Chlorophenyl Phenyl Ether	ug/L	No Data	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo
4-Nitrophenol	ug/L	< 5.4	No Data	No Criteria	N/A	N/A	N/A	N/A	N/A	Uo

Table Notes:
1. MEC = Maximum Effluent Concentration
2. Water & Org = CTR Water Quality Criteria for Human Health for Consumption of Water & Organisms
3. Org. Only = CTR Water Quality Criteria for Human Health for Organisms Only
4. RP = Reasonable Potential
5. Ud = Undetermined, Insufficient Data
   Uo = Undetermined, No Water Quality Criteria.
6. Ammonia criteria are determined on a sliding scale based upon temperature and pH. The criterion represented in this table is based upon chronic exposure and a temperature of 20.1°C and a pH of 9.8. See Section 4.3.3.1.3.2 of the Fact Sheet.

ATTACHMENT G - AMEL AND MDEL AMMONIA STANDARDS BASED ON 2013 FRESHWATER ACUTE CRITERIA

Table H-1. pH and Temperature Dependent AMEL Ammonia Criteria

	Temp (°C)																	
pH	0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0
6.5	12.4	12.4	12.4	12.0	11.1	10.2	9.4	8.6	7.9	7.3	6.7	6.2	5.7	5.3	4.8	4.4	4.1	3.8
6.6	11.9	11.9	11.9	11.5	10.6	9.8	9.0	8.3	7.6	7.0	6.5	5.9	5.5	5.0	4.6	4.3	3.9	3.6
6.7	11.3	11.3	11.3	11.0	10.1	9.3	8.6	7.9	7.3	6.7	6.1	5.7	5.2	4.8	4.4	4.1	3.7	3.4
6.8	10.7	10.7	10.7	10.3	9.5	8.8	8.1	7.4	6.8	6.3	5.8	5.3	4.9	4.5	4.2	3.8	3.5	3.2
6.9	10.0	10.0	10.0	9.6	8.9	8.2	7.5	6.9	6.4	5.9	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0
7.0	9.2	9.2	9.2	8.9	8.2	7.5	6.9	6.4	5.9	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8
7.1	8.4	8.4	8.4	8.1	7.5	6.9	6.3	5.8	5.3	4.9	4.5	4.2	3.8	3.5	3.3	3.0	2.8	2.5
7.2	7.5	7.5	7.5	7.3	6.7	6.2	5.7	5.2	4.8	4.4	4.1	3.7	3.5	3.2	2.9	2.7	2.5	2.3
7.3	6.7	6.7	6.7	6.5	5.9	5.5	5.0	4.6	4.3	3.9	3.6	3.3	3.1	2.8	2.6	2.4	2.2	2.0
7.4	5.8	5.8	5.8	5.7	5.2	4.8	4.4	4.1	3.7	3.4	3.2	2.9	2.7	2.5	2.3	2.1	1.9	1.8
7.5	5.1	5.1	5.1	4.9	4.5	4.2	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5
7.6	4.3	4.3	4.3	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.3	2.2	2.0	1.8	1.7	1.6	1.4	1.3
7.7	3.7	3.7	3.7	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.4	1.3	1.2	1.1
7.8	3.1	3.1	3.1	3.0	2.8	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9
7.9	2.6	2.6	2.6	2.5	2.3	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.8
8.0	2.1	2.1	2.1	2.1	1.9	1.8	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.6
8.1	1.8	1.8	1.8	1.7	1.6	1.5	1.3	1.2	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
8.2	1.5	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4
8.3	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
8.4	1.0	1.0	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
8.5	0.8	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2
8.6	0.7	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2
8.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
8.8	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1
8.9	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
9.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1

Table H-2. pH and Temperature Dependent MDEL Ammonia Criteria

	Temp (°C)																	
pH	0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0
6.5	32.5	32.5	32.5	31.4	28.9	26.6	24.5	22.6	20.8	19.1	17.6	16.2	14.9	13.7	12.6	11.6	10.7	9.9
6.6	31.1	31.1	31.1	30.2	27.8	25.6	23.5	21.6	19.9	18.3	16.9	15.5	14.3	13.2	12.1	11.2	10.3	9.4
6.7	29.6	29.6	29.6	28.7	26.4	24.3	22.4	20.6	19.0	17.4	16.1	14.8	13.6	12.5	11.5	10.6	9.8	9.0
6.8	27.9	27.9	27.9	27.0	24.9	22.9	21.1	19.4	17.9	16.4	15.1	13.9	12.8	11.8	10.9	10.0	9.2	8.5
6.9	26.0	26.0	26.0	25.2	23.2	21.4	19.7	18.1	16.7	15.3	14.1	13.0	12.0	11.0	10.1	9.3	8.6	7.9
7.0	24.0	24.0	24.0	23.2	21.4	19.7	18.1	16.7	15.4	14.1	13.0	12.0	11.0	10.1	9.3	8.6	7.9	7.3
7.1	21.8	21.8	21.8	21.2	19.5	17.9	16.5	15.2	14.0	12.9	11.8	10.9	10.0	9.2	8.5	7.8	7.2	6.6
7.2	19.6	19.6	19.6	19.0	17.5	16.1	14.8	13.7	12.6	11.6	10.6	9.8	9.0	8.3	7.6	7.0	6.5	6.0
7.3	17.4	17.4	17.4	16.9	15.5	14.3	13.2	12.1	11.2	10.3	9.4	8.7	8.0	7.4	6.8	6.2	5.7	5.3
7.4	15.3	15.3	15.3	14.8	13.6	12.5	11.5	10.6	9.8	9.0	8.3	7.6	7.0	6.5	5.9	5.5	5.0	4.6
7.5	13.2	13.2	13.2	12.8	11.8	10.8	10.0	9.2	8.5	7.8	7.2	6.6	6.1	5.6	5.1	4.7	4.4	4.0
7.6	11.3	11.3	11.3	11.0	10.1	9.3	8.6	7.9	7.2	6.7	6.1	5.6	5.2	4.8	4.4	4.1	3.7	3.4
7.7	9.6	9.6	9.6	9.3	8.6	7.9	7.3	6.7	6.1	5.7	5.2	4.8	4.4	4.1	3.7	3.4	3.2	2.9
7.8	8.1	8.1	8.1	7.8	7.2	6.6	6.1	5.6	5.2	4.8	4.4	4.0	3.7	3.4	3.1	2.9	2.7	2.4
7.9	6.7	6.7	6.7	6.5	6.0	5.5	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.8	2.6	2.4	2.2	2.0
8.0	5.6	5.6	5.6	5.4	5.0	4.6	4.2	3.9	3.6	3.3	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.7
8.1	4.6	4.6	4.6	4.5	4.1	3.8	3.5	3.2	3.0	2.7	2.5	2.3	2.1	2.0	1.8	1.7	1.5	1.4
8.2	3.8	3.8	3.8	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.1	1.9	1.7	1.6	1.5	1.4	1.3	1.2
8.3	3.1	3.1	3.1	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.7	1.6	1.4	1.3	1.2	1.1	1.0	1.0
8.4	2.6	2.6	2.6	2.5	2.3	2.1	1.9	1.8	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8
8.5	2.1	2.1	2.1	2.1	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.8	0.8	0.7	0.6
8.6	1.8	1.8	1.8	1.7	1.6	1.4	1.3	1.2	1.1	1.0	1.0	0.9	0.8	0.7	0.7	0.6	0.6	0.5
8.7	1.5	1.5	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4
8.8	1.2	1.2	1.2	1.2	1.1	1.0	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4
8.9	1.0	1.0	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3
9.0	0.9	0.9	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3

ATTACHMENT H - EXAMPLE AMMONIA IMPACT RATIO (AIR) CALCULATOR

A	B	C	D	E	F	G
Date of Sample	Ammonia Value in Effluent (mg/L)	Receiving Water pH	Receiving Water Temperature	Ammonia Standard as determined from Ammonia Criteria Tables	MDEL Ammonia Impact Ratio (Column B/ Column E)	AMEL Ammonia Impact Ratio (Column B/ Column E)

ATTACHMENT I - RECYCLED WATER FINDINGS, USE REQUIREMENTS, PROVISIONS, AND TECHNICAL REPORT REQUIREMENTS

The Recycled Water Findings, Use Requirements, Provisions, and Technical Report Requirements in this Attachment apply to the Permittee's recycled water system, including storage, distribution, and use.

1. RECYCLED WATER FINDINGS

The North Coast Regional Water Quality Control Board (Regional Water Board) finds that:

1.1. BACKGROUND INFORMATION

1.1.1. "Recycled water" means water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur and is therefore considered a valuable resource. (Wat. Code, § 13050(n).)

1.1.2. In 1977, the State Water Board adopted Resolution No. 77-1, titled "Policy with Respect to Water Reclamation in California" (Resolution No. 77-1). Resolution No. 77-1, in part, encourages the use of recycled water in the state.

1.1.3. In 1996, the State Water Board and DDW set forth principles, procedures, and agreements to which the agencies committed themselves, relative to the use of recycled water in California, in a document titled Memorandum of Agreement between the *Department of Health Services and the State Water Resources Control Board on the Use of Reclaimed Water (MOA).* This Order is consistent with the MOA.

1.1.4. Prior to July 1, 2014, CDPH provided public health recommendations to the Water Boards through review and approval of title 22 Engineering Reports prepared pursuant to California Code of Regulations, title 22, section 60323. The Water Boards then issue permits. Effective July 1, 2014, the administration of the Drinking Water Program, including responsibility for review of title 22 Engineering Reports was transferred from the CDPH to the State Water Board.

1.1.5. On December 11, 2018, the State Water Board adopted Resolution No. 2018-0057 Adoption of a Policy for the Water Quality Control of Recycled Water (Recycled Water Policy). The goal of Resolution No. 2018-0057 is to encourage the development of new and underutilized water resources to mitigate the effects of long-term drought, climate change, and water supply uncertainty, including the use of recycled water that meets the definition in Water Code section 13050(n), as identified in Finding 1.1.1., above. In accordance with the Recycled Water Policy, activities involving

recycled water use that could impact high quality waters are required to implement best practicable treatment or control of the discharge necessary to ensure that pollution or nuisance will not occur, and the highest water quality consistent with the maximum benefit to the people of the state will be maintained.

1.1.6. On June 3, 2014, the State Water Resources Control Board (State Water Board) adopted Order WQ 2014-0090, Waste Discharge Requirements for Recycled Water Use. On June 7, 2016, the State Water Board adopted Order WQ 2016-0068-DDW, Water Reclamation Requirements for Recycled Water Use (General Order), amending and replacing Order WQ 2014-0090. The General Order was adopted to facilitate recycled water use and reduce demand on potable water supplies and encourages recycled water projects by maintaining a streamlined approach in permitting new recycled water users through a water recycling program. This Order incorporates language from the General Order and supports the streamlined approach that allows the Permittee to add recycled water projects through the Permittee's recycled water program and in accordance with requirements of this Order.

1.1.7. The Uniform Statewide Recycling Criteria was established for the protection of public health and are codified in the California Code of Regulations, title 22, division 4, chapter 3 (herein referred to as Uniform Statewide Recycling Criteria). Approved uses of recycled water under the Uniform Statewide Recycling Criteria depend on the level of treatment and potential for public contact. Under the Uniform Statewide Recycling Criteria, recycled water is categorized based on treatment levels. There are four categories of recycled water relevant to this Order; they are listed here and defined in the indicated regulations section:

1.1.7.1. Undisinfected secondary recycled water (Cal. Code Regs., tit. 22, § 60301.900.)

1.1.7.2. Disinfected secondary-23 recycled water (Cal. Code Regs., tit. 22, § 60301.225.)

1.1.7.3. Disinfected secondary-2.2 recycled water (Cal. Code Regs., tit. 22, § 60301.220.)

1.1.7.4. Disinfected tertiary recycled water (Cal. Code Regs., tit. 22, § 60301.230.)

An approved title 22 Engineering Report addressing protection of public health is required before authorization to use recycled water is granted by the Regional Water Board Executive Officer.

1.1.8. Recycled water shall only be used consistent with the Uniform Statewide Recycling Criteria and requirements specified in this Order, including:

1.1.8.1. Written approval of a title 22 Engineering Report prior to delivery of recycled water for all use types proposed by the Permittee;

1.1.8.2. Use of recycled water are subject to backflow prevention, cross connection tests, and setback requirements to surface impoundments, wells, etc. as contained in the Uniform Statewide Recycling Criteria and the California Code of Regulations, title 17, division 1, article 2.

1.1.9. New uses of recycled water not identified at the time that this Order is adopted, may be authorized after Order adoption, as long as such new uses meet the requirements of this Order and an approved title 22 Engineering Report.

1.1.10. When used in compliance with the Recycled Water Policy, the Uniform Statewide Recycling Criteria, and all applicable state and federal water quality laws, the Regional Water Board finds that recycled water is safe for approved uses, and strongly supports recycled water as a safe alternative to raw and potable water supplies for approved uses.

1.1.11. This Order authorizes beneficial, non-potable recycled water uses consistent with the Uniform Statewide Recycling Criteria and any additional requirements specified in the Permittee's ROWD and approved by DDW.

1.1.12. There are many sources of salts and nutrients in surface and groundwater, including leaching of naturally occurring salts in soils as a result of irrigation and precipitation, animal wastes, fertilizers and other soil amendments, municipal use including water softeners, and industrial wastewater.

1.1.13. The use of recycled water has the potential to increase nutrients in groundwater supplies. In order to minimize the nutrient loading, this Order requires that recycled water used for irrigation purposes be applied at agronomic rates.

1.1.14. The use of recycled water for irrigation has the potential to increase salts and other constituents in groundwater, but is not expected to be a significant source of salt loading relative to other potential sources, particularly when recycled water is used in the same watershed in which it would otherwise be discharged. Basin-specific salt and nutrient management plans, however, will provide definitive information on where assimilative capacity is available.

1.1.15. The Recycled Water Policy calls on local water and wastewater entities together with other stakeholders who contribute salt and nutrients to a groundwater basin or sub-basin, to fund and develop Salt and Nutrient Management Plans to comprehensively address all sources of salts and nutrients. The State and Regional Water Boards assert the need for comprehensive salt and nutrient management planning and directs that salinity and nutrient increases should be managed in a manner consistent with the Recycled Water Policy. It is the intent of the Recycled Water Policy that every groundwater basin/sub-basin in California ultimately has a consistent Salt and Nutrient Management Plan. The appropriate way to address salt and nutrient issues is through the development of regional or subregional Salt and Nutrient Management Plans.

1.1.16. According to Paragraph 7(b)(4) of the Recycled Water Policy, irrigation projects that qualify for streamlined permitting are not required to conduct project-specific receiving water and groundwater monitoring unless otherwise required by an applicable salt and nutrient management plan. This Order requires the Permittee to comply with any future salt and nutrient management plan adopted by the Regional Water Board. Until a salt and nutrient management plan is adopted, groundwater monitoring is required to assess impacts of effluent disposal to the recycled water system.

1.1.17. The Recycled Water Policy includes monitoring requirements for Constituents of Emerging Concern (CECs) for the use of recycled water for groundwater recharge by surface and subsurface application methods. For this Policy, CECs are defined to be chemicals in personal care products, pharmaceuticals including antibiotics, antimicrobials; industrial, agricultural, and household chemicals; hormones; food additives; transformation products, inorganic constituents; and nanomaterials. The monitoring requirements and criteria for evaluating monitoring results in the Recycled Water Policy are based on recommendations from a Science Advisory Panel. The Science Advisory Panel was convened in accordance with provision 10.b of the Recycled Water Policy. The panel's recommendations were presented in the report; Monitoring Strategies for Chemicals of Emerging Concern (CECs) in Recycled Water - Recommendations of a Science Advisory Panel, dated June 25, 2010. Because this General Order is limited to non-potable uses and does not authorize groundwater replenishment activities, monitoring for CECs is not required.

1.1.18. The Recycled Water Policy requires permits for landscape irrigation with recycled water to include priority pollutant monitoring at the recycled water production facility. Annual monitoring is required for design production flows greater than one million gallons per day; a five year monitoring frequency is required for flows less than one million gallons

per day. Priority pollutants are listed in Appendix A of 40 Code of Federal Regulations (CFR) Part 423.

1.1.19. This Order requires the Permittee to minimize the potential for surface runoff of recycled water, (identified in Attachment I, Section 2.1.4), but recognizes that even with diligent implementation of best management practices (BMPs), incidental runoff events may occur on occasion. Incidental runoff is defined as unintended small amounts (volume) of runoff from recycled water use areas where agronomic rates and appropriate best management practices are being implemented. Examples of incidental runoff include unintended, minimal over-spray from sprinklers that escapes the recycled water use area or accidental breakage of a sprinkler head on a properly maintained irrigation system. Water leaving a recycled water use area is not considered incidental if it is part of the facility design, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff events are typically infrequent, low volume, accidental, not due to a pattern of neglect or lack of oversight, and are promptly addressed. The Regional Water Board recognizes that such minor violations are unavoidable and present a low risk to water quality. All runoff incidents, including incidental runoff, shall be summarized in the Permittee's quarterly recycled water monitoring report. Enforcement action shall be considered for runoff that is not incidental, inadequate response by the Permittee to incidental runoff incidents, repeated runoff incidents that were within the Permittee's control, where incidental runoff directly causes violations of water quality objectives, incidents that create a condition of pollution or nuisance, and discharges that reach surface water in violation of Discharge Prohibitions in section 3 of the Order and/or Recycled Water Requirements in Attachment I, section 2.1.4.or 2.1.6.

1.2. STATUTORY AND REGULATORY ISSUES

1.2.1. State Water Board DDW requirements for completion of the title 22 Recycled Water Engineering Report were identified in letters dated December 22, 2017**,** and April 25, 2018, that also included recommendations and conditions of approval that are included below as requirements of this Order:

1.2.1.1. Update and resubmit the title 22 Recycled Water Engineering Report addressing the comments in DDW's December 22, 2017, and April 25, 2018, letters;

1.2.1.2. There shall be no delivery of recycled water to existing dual-plumbed uses until shut-down tests are conducted and no cross-connections on-site within existing dual-plumbed use areas are documented.

1.2.1.3. New use areas and types of recycled water uses, other than those listed and/or described in the DDW-approved Engineering Report must be addressed by submittal of an addendum to the Engineering Report for DDW approval. The addendums must demonstrate that applicable changes to operations and management programs are in place.

1.2.1.4. Future dual-plumbed use areas shall comply with the requirements specified in section 2.2.17 of this Attachment.

1.2.2. Pursuant to Water Code section 13523, the Regional Water Board, after consulting with and receiving the recommendation of the State Water Board DDW, may prescribe water reclamation requirements for water that is used or proposed to be used as recycled water. The requirements shall be established in conformance with the Uniform Statewide Recycling Criteria pursuant to Water Code section 13521. Pursuant to Water Code section 13523 (b), the requirements for use of recycled water not addressed by the Uniform Statewide Recycling Criteria will be considered on a case-by-case basis by Regional Water Boards, after consulting with and receiving the recommendations of the State Water Board DDW. The State Water Board DDW provides such recommendations and conditions of approval through acceptance letters for title 22 Engineering Reports.

1.2.3. This Order implements Water Code section 13523.1 which authorizes issuance of a Master Recycled Water Permit to suppliers or distributors, or both, of recycled water in lieu of issuing individual water recycled water requirements to each recycled water user.

1.2.4. Effluent Limitations included in Order No. R1-2018-0002 will ensure compliance with requirements contained in title 22 and the DDW/State Water Board MOA.

1.2.5. Recycled water shall only be used on areas that have been evaluated in compliance with the California Environmental Quality Act (CEQA). Future CEQA documents must evaluate the potential environmental impacts of recycled water use on a proposed use site and identify mitigation measures for the protection of water quality to be implemented. Mitigation measures and BMPs must be clearly identified in an Operations and Management Plan as identified in Recycled Water Technical Report Requirement 2.3.2.

1.2.6. The uses of recycled water authorized by this Order are exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste in California Code of Regulations, title 27, division 2, subdivision 1, section 20005, et seq. The activities are exempt from the requirements of title 27 so long as the activity meets, and continues to meet, all preconditions listed below. (Cal Code Regs., tit. 27, § 20090.)

1.2.6.1. **Sewage**—Discharges of domestic sewage or treated effluent which are regulated by WDRs issued pursuant to California Code of Regulations, title 23, division 3, chapter 9, or for which WDRs have been waived, and which are consistent with applicable water quality objectives, and treatment or storage facilities associated with municipal wastewater treatment plants, provided that residual sludge or solid waste from wastewater treatment facilities shall be discharged only in accordance with the applicable State Water Board promulgated provisions of this division. (Cal. Code Regs., tit. 27, § 20090(a).)

1.2.6.2. **Wastewater**—Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leach fields if the following conditions are met: (1) the applicable Regional Water Board has issued WDRs, reclamation requirements, or waived such issuance; (2) the discharge is in compliance with the applicable water quality control plan; and (3) the wastewater does not need to be managed according to, California Code of Regulations, title 22, division 4.5, chapter 11, as a hazardous waste. (Cal. Code Regs., tit. 27, § 20090(b).)

1.2.6.3. **Reuse** – Recycling of other use of materials salvaged from waste or produced by waste treatment, such as scrap metal, compost, and recycled chemicals, provided that discharges of residual wastes from recycling or treatment operations to land shall be according to applicable provisions of Title 27 regulations.(Cal. Code Regs., tit. 27, § 20090(h).)

1.2.7. Pursuant to Water Code section 106.5, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by encouraging uses of recycled water. Such uses must be consistent with the requirements of California Code of Regulations (including the Uniform Statewide Recycling Criteria). This Order furthers the human right to water by encouraging use of recycled water, thus reducing demand on other sources, including use of potable water used for non-potable uses where recycled water is available.

2. RECYCLED WATER USE REQUIREMENTS

2.1. Requirements

2.1.1. The delivery of recycled water shall cease as soon as possible if:

2.1.1.1. Disinfection of wastewater ceases at any time; or

2.1.1.2. Recycled water specifications are violated or threaten to be violated.

2.1.2. The use of recycled water shall not result in unreasonable waste of water.

2.1.3. The use of recycled water shall not create a condition of pollution or nuisance as defined in Water Code section 13050(m).

2.1.4. The incidental runoff of recycled water shall not result in water quality less than that prescribed in water quality control plans or policies unless authorized through time schedule provisions in WDRs, waivers of WDRs, or conditional prohibitions regulating agricultural discharges from irrigated lands.

2.1.5. All recycled water provided pursuant to this Order shall be treated and managed in conformance with all applicable provisions of the Recycled Water Policy.

2.1.6. The Permittee shall be responsible for ensuring that recycled water meets the quality standards of section 7.1 of the Order and that all users of recycled water comply with the terms and conditions of this Order and with any rules, ordinances, or regulations adopted by the Permittee.

2.1.7. The Permittee shall discontinue delivery of recycled water during any period in which there is reason to believe that the quality of the delivered recycled water is not meeting the Uniform Statewide Recycling Criteria and any other requirements specified in this Order. Notification requirements are as follows:

2.1.7.1. The Permittee shall notify recycled water users if recycled water that does not meet the recycled water quality requirements of this Order is released into the recycled water system.

2.1.7.2. The Permittee shall notify the Regional Water Board and State Water Board DDW within one (1) business day of determining that delivery of off-specification recycled water has taken place.

2.1.7.3. In circumstances where the emergency requires termination of delivery to recycled water users, the Permittee shall copy the Regional Water Board and State Water Board DDW on any correspondence concerning non-compliance between the Permittee and its users. This notification does not supersede any notification requirements contained in Order Provision 6.1.2 and Attachment D section 5.5.

2.1.7.4. The delivery of recycled water shall not resume until all conditions have been corrected.

2.1.8. The Permittee shall require each recycled water user to report all violations of recycled water regulations identified in this Order, including runoff incidents. All reported violations of recycled water regulations shall be included in the Permittee's quarterly self-monitoring report, including incidental runoff events that the Permittee is aware of.

2.1.9. Uses of recycled water with frequent or routine application (i.e., agricultural or landscape irrigation uses) shall be at agronomic rates and shall consider soil, climate, and plant demand. In addition, application of recycled water and use of fertilizers shall be at a rate that takes into consideration nutrient levels in recycled water and nutrient demand by plants. The Permittee is required to maintain and update an Implementation or Operations and Management Plan specifying agronomic rates and nutrient application for the use area(s) and a set of reasonably practicable measures to ensure compliance with this General Order.

2.1.9.1. Hydraulic loading to any individual recycled water use site shall be at reasonable agronomic rates designed to minimize percolation of wastewater constituents below the evaporative and root zone.

2.1.9.2. The Permittee must communicate to recycled water users the nutrient levels in the recycled water at least monthly during the irrigation season so that the recycled water users can appropriately evaluate fertilizer needs prior to application of fertilizers. If the Permittee demonstrates that the recycled water nutrient concentrations are low and consistent from month to month, then the Permittee may reduce the frequency of notifications upon approval by the Regional Water Board Executive Officer.

2.1.10. Uses of recycled water that are infrequent (i.e., dust control, frost protection, firefighting, hydrostatic testing, etc.) shall be addressed by a set of reasonably practicable measures within an Implementation or Operations and Management Plan.

2.1.11. Recycled water shall not be applied on water-saturated or frozen ground or during periods of precipitation such that runoff is induced.

2.1.12. Recycled water shall not be allowed to escape the recycled use area(s) as surface flow that could either pond and/or enter surface waters. [CCR title 22, section 60310(e)] However, incidental runoff of recycled water, such as unintended, minimal over-spray from sprinklers that escapes the recycled water use area, or accidental breakage of a sprinkler head on a properly maintained irrigation system, is not a violation of this Order. Practices and strategies to prevent the occurrence of runoff shall include, where appropriate, but not be limited to:

2.1.12.1. All new recycled water use sites shall include a 100-foot setback to all surface waters or provide written documentation of appropriate best management practices that will be implemented in order to prevent or minimize the potential for runoff discharging to surface water;

2.1.12.2. Urban recycled water use sites shall maintain appropriate setbacks to the street gutter and other inlets to the storm drain system based on site conditions or implement alternative means to prevent the discharge of runoff to surface waters.

2.1.12.3. Implementation of an Operations and Maintenance Plan that provides for detection of leaks (for example, from sprinkler heads), and correction within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever comes first.

2.1.12.4. Proper design and aim of sprinkler heads;

2.1.12.5. Proper design and operation of the irrigation system;

2.1.12.6. Refraining from application during precipitation events;

2.1.12.7. Application of recycled water at an agronomic rate that does not exceed the water or nutrient demand of the crop or vegetation being irrigated;

2.1.12.8. Use of repeat start times and multiple water days to increase irrigation efficiency and reduce runoff potential;

2.1.12.9. Maintenance of recycled water infrastructure (pipelines, pumps, etc.) to prevent and minimize breakage and leaks; and

2.1.12.10. Adequate protection of all recycled water reservoirs and ponds against overflow, structural damage, or a reduction in efficiency resulting from a 25-year, 24-hour storm or flood event or greater, and notification of the Regional Water Board Executive Officer if a discharge occurs.

2.1.13. Use areas that are spray irrigated and allow public access shall be irrigated during periods of minimal use. Consideration shall be given to allow maximum drying time prior to subsequent public use.

2.1.14. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities, roadways, or any other area where the public would be accidentally exposed to recycled water. [Cal. Code Regs title 22, § 60310(e)(3)]

2.1.15. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff. [Cal. Code Regs title 22, § 60310(e)(3)]

2.1.16. All recycled water equipment, pumps, piping, valves, and outlets shall be appropriately marked to differentiate them from potable facilities.

2.1.17. The Permittee shall implement the requirements of the California Health and Safety Code (CHSC), section 116815 regarding the installation of

purple pipe. CHSC section 116815 requires that *"all pipes installed above or below the ground, on or after June 1, 1993, that are designed to carry recycled water, shall be colored purple or distinctively wrapped with purple tape."* Section 116815 also contains exemptions that apply to municipal facilities that have established a labeling or marking system for recycled water used on their premises and for water delivered for agricultural use. The Permittee shall document compliance with this requirement on an annual basis in its annual monitoring report. The Permittee shall continue to implement the requirements of CHSC section 116815 during the term of this Order.

2.1.18. The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibbs. Only quick couplers that differ from those used on the potable water system shall be used on the portions of the recycled water piping system in areas subject to public access. [Cal. Code Regs title 22, § 60310(l)]

2.1.19. There shall be no cross-connection between potable water supply and piping containing recycled water. [22 Cal. Code Regs, § 60310(h)] All Users of recycled water shall provide for appropriate backflow protection for potable water supplies as specified in California Code of Regulations, title 17, section 7604 or as determined by the State Water Board on a case-by-case basis to protect public health.

2.1.20. Disinfected tertiary recycled water shall not be irrigated within 50 feet of any domestic water supply well or domestic water supply surface intake, unless the technical requirements specified in CCR title 22, section 60310(a) have been met and approved by DDW.

2.1.21. The use of recycled water shall not cause degradation of any water supply.

2.1.22. Areas irrigated with recycled water 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. Irrigation water shall infiltrate completely within a 24-hour period.

2.1.23. All areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide that include the following wording: 'RECYCLED WATER – DO NOT DRINK'. [Cal. Code Regs title 22, § 60310(g)] Each sign shall display an international symbol similar to that shown in CCR title 22, Figure 60310-A. These warning signs shall be posted at least every 500 feet with a minimum of a sign at each corner and access road. DDW may accept alternative signage and wording, or an educational program, provided that applicant demonstrates to DDW

that the alternative approach will assure an equivalent degree of public notification.

2.1.24. DDW Guidance Memo No. 2003-02: Guidance Criteria for the Separation of Water Mains and Non-Potable Pipelines provides guidance for the separation of new potable water mains and recycled water pipelines which shall be implemented as follows:

2.1.24.1. There shall be at least a 4-foot horizontal separation between all pipelines transporting recycled water and those transporting disinfected tertiary recycled water and new potable water mains.

2.1.24.2. There shall be at least a 1-foot vertical separation at crossings between all pipelines transporting recycled water and potable water mains, with the potable water main above the recycled water pipeline, unless approved by the DDW.

2.1.24.3. All portions of the recycled water pipeline that cross under a potable water main shall be enclosed in a continuous sleeve.

2.1.24.4. Recycled water pipelines shall not be installed in the same trench as new water mains.

2.1.24.5. Where site conditions make it impossible to comply with the above conditions, any variation shall be approved by DDW and comply with alternative construction criteria for separation between sanitary sewers and potable water mains as described in the DDW document titled “Criteria for Separation of Water Mains and Sanitary Sewers”, treating the recycled water line as if a sanitary sewer.

2.1.24.6. A minimum freeboard, consistent with pond design, but not less than 2 feet, shall be maintained under normal operating conditions in any reservoir or pond containing recycled water. When extraordinary operating conditions necessitate a freeboard of less than 2 feet, the Permittee will document the variance in the monthly self-monitoring report. The report will include an explanation of the circumstances under which the variance is required, the estimated minimum freeboard during the extraordinary period, and any permit violations occurring as a result of the variance.

2.1.24.7. The use of recycled water for dust suppression shall only occur during periods of dry weather, shall be limited to periods of short duration, and shall be limited to areas under the control of the Permittee.

2.1.24.8. The Permittee shall comply with any salt and nutrient management plan that is adopted by the Regional Water Board in the future.

2.1.24.9. The Permittee must be present at all times during recycled water filling for residential haulers in order to ensure the fill station is being used properly and safely.

2.1.24.10. The Permittee and recycled water users shall have readily accessible hand washing or hand sanitation station(s) close to the filling station.

2.1.24.11. The Permittee and recycled water users shall apply hand sanitizer or wash their hands with soap and potable water after working with recycled water and especially before eating or drinking.

2.1.24.12. The Permittee and recycled water users shall have readily accessible first aid kit(s). Cuts or abrasions should be promptly washed, disinfected, and bandaged.

2.1.24.13. 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, §§ 60301 – 60357 of the CCR (Water Recycling Criteria).

2.1.24.14. The Permittee shall implement its DDW title 22 Recycled Water Engineering Report, accepted January 05, 2023, (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.

2.2. **Recycled Water Provisions**

2.2.1. The Permittee shall manage recycled water, and shall develop, establish and enforce administrative procedures, engineering standards, rules, ordinances and/or regulations governing the design and construction of recycled water systems and use facilities and the use of recycled water in accordance with the criteria established in CCR title 22 and this Order. The Permittee shall develop user agreements requiring user compliance with CCR title 22 and this Order. Recycled water engineering standards, rules, ordinances and/or regulations shall be approved by the Regional Water Board Executive Officer and DDW.

2.2.2. Upon approval of the Permittee's procedures, engineering standards, rules, ordinances, and/or regulations, the Permittee may authorize specific additional recycled water projects, in accordance with the approved program and agreements and in accordance with the technical report requirements in section 2.3 of this attachment (Attachment I).

2.2.3. The Permittee shall conduct periodic inspections of the recycled water use areas, facilities, and operations to monitor and assure compliance with the conditions of this Order. The Permittee shall take whatever actions are necessary, including termination of delivery of recycled water, to correct any user violations.

2.2.4. Where dual-plumbed systems are utilized, the Permittee shall, upon prior notification to the user, conduct regular inspections to assure cross-connections are not made with potable water systems and DDW approved backflow prevention devices are installed and operable. Reports of testing and maintenance shall be maintained by the Permittee. The Permittee may use a third-party agent to perform cross-connection testing, however, the Permittee is solely responsible for compliance with conditions of this Order and the approved water recycling program.

2.2.5. The Permittee shall be responsible for ensuring that recycled water meets the quality standards of this Order and for the operation and maintenance of transport facilities and associated appurtenances. If an entity other than the Permittee has actual physical and ownership control over the recycled water transport facilities, the Permittee may delegate operation and maintenance responsibilities for such facilities to that entity through use agreements. The Permittee shall require the use of the recycled water to be in accordance with the Uniform Statewide Recycling Criteria and to comply with all requirements of this Order, including requirements to apply only at agronomic rates and not cause unauthorized degradation, pollution, or nuisance. If not the same entity, the Permittee shall provide water quality data and communicate to recycled water users the nutrient levels in the recycled water.

2.2.6. All persons involved in the operation and/or maintenance of the recycled water system shall attend training regarding the safe and efficient operation of recycled water use facilities.

2.2.7. The Permittee shall require recycled water users to comply with the Permittee's use area conditions. Use area requirements shall be consistent with requirements identified in this Attachment (Attachment I).

2.2.8. If recycled water will be transported by truck for uses consistent with the Uniform Statewide Recycling Criteria such as dust control, the Permittee shall provide notification and control measures for Users consistent with the provisions of the approved title 22 Engineering Report that addresses protection of public health.

2.2.9. A copy of the Water Recycling Use Permit must be provided to recycled water users by the Permittee (electronic format is acceptable). The recycled water users must have the documents available for inspection

by State and Regional Water Board staff, State/County officials, and/or the Permittee.

2.2.10. The Permittee shall comply with the recycled water monitoring and reporting requirements in Attachment E of this Order. This monitoring program shall be consistent with any applicable Salt and Nutrient Management Plan for the basin/sub-basin. The Permittee is responsible for collecting reports from the recycled water users. Where applicable, recycled water users are responsible for submitting on-site observation reports and use data to the Permittee, who will compile and file an annual report with the Regional Water Board. The Permittee, at its discretion, may assume any of its recycled water users' responsibility for on-site observation reports and use data.

2.2.11. The Permittee and Users shall maintain in good working order and operate as efficiently as possible any facility or control system to achieve compliance with this Order. The Permittee may use a third-party agent to perform this task, however, the Permittee is solely responsible for compliance with conditions of this permit and the approved water recycling program.

2.2.12. The Permittee shall require that personnel receive training to assure proper operation of recycling facilities, worker protection, and compliance with this Order. The Permittee shall require Recycled Water Supervisor(s) to be familiar with the conditions in this Order that apply to recycled water. The Recycled Water Use Supervisor(s) shall have authority to ensure recycled water use complies with this Order and the Uniform Statewide Recycling Criteria.

2.2.12.1. A person designated by the Permittee that acts as the coordinator between the Permittee (as the supplier of recycled water) and the recycled water users.

2.2.13. The Permittee shall assure that all above ground equipment, including pumps, piping, storage reservoir, and valves which may at any time contain recycled water are identified with appropriate notification as required by the Uniform Statewide Recycling Criteria and California Health and Safety Code section 116815. The Permittee may use a third-party agent to perform this task, however, the Permittee is solely responsible for compliance with conditions of this permit and the approved water recycling program.

2.2.14. If, in the opinion of the Regional Water Board Executive Officer, recycled water use at proposed new locations cannot be adequately regulated under the Master Recycled Water Permit, a Report of Waste Discharge may be requested, and individual Recycled Water Requirements may be adopted.

2.2.15. If the Permittee delivers recycled water to any dual-plumbed recycled water system(s), the Permittee shall notify DDW and the Regional Water Board of any incidents of backflow from the dual-plumbed recycled water system into the potable water system within 24 hours of the discovery of the incident.

2.2.16. If the Permittee delivers recycled water to any dual-plumbed recycled water system(s), any backflow prevention device installed to protect the public water system serving the dual-plumbed recycled water system shall be inspected and maintained in accordance with section 7605 of title 17, CCR and MRP section 7.3.

2.2.17. Future dual-plumbed use areas shall comply with the following requirements:

2.2.17.1. Prior to the initial operation of the dual-plumbed recycled water system, the Permittee shall document that there are no cross-connections on-site within the proposed dual-plumbed use area. A description of how the initial separation (cross-connection) test will be performed (pressure, dye, or other method) shall be provided to DDW. The dual-plumbed recycled water system shall be retested for possible cross-connection at least once every four years.

2.2.17.2. The Permittee shall notify DDW prior to conducting the cross-connection control test. DDW staff may witness the test.

2.2.17.3. Provide documentation to describe the method for cross-connection testing (pressure, dye, or other method) and the steps to be taken during the cross-connection control test.

2.2.17.4. Annually thereafter, the Permittee shall ensure that the recycled water system (indoor and outdoor) is inspected for possible cross-connection with the potable water system.

2.2.17.5. The inspectors and the testing shall be performed by a cross-connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. Please identify that person in a notification provided to DDW.

2.2.17.6. Each dual-plumbed use area must have an adequately trained use area supervisor in order to control the on-site piping and prevent any cross-connections. The use area supervisor must keep as-built plans up to date and on the site.

2.2.17.7. The use area supervisor must be adequately trained on the use of recycled water. The use area supervisor must complete the training before recycled water is delivered.

2.2.17.8. Verify that appropriate backflow prevention devices are installed and have been tested annually in accordance with California Code of Regulations Title 17. Devices must be located on the potable water line, downstream of the meter.

2.2.17.9. The results of the cross-connection inspections and tests must be documented and submitted to DDW.

2.2.17.10. Indicate whether any proposed dual-plumbed use area will receive supplemental water and provide details of properly designed air gap.

2.3. Recycled Water Technical Report Requirements

The Permittee shall maintain up-to-date recycled water technical reports, as follows:

2.3.1. The Permittee shall submit and maintain a DDW-approved title 22 Recycled Water Engineering Report that demonstrates and defines compliance with the Uniform Statewide Recycling Criteria (and any future amendments thereto);

2.3.2. The Permittee shall submit revised and/or additional engineering report(s) to the Regional Water Board and DDW, prior to initiating any recycled water use (e.g., new industrial use, recreational surface impoundments, water cooling, new dual-plumbed system, etc.) not addressed in any previously submitted CCR title 22 engineering report(s). The Permittee shall also submit any approval letters prepared by DDW to the Regional Water Board Executive Officer. Engineering report(s) shall be prepared by a properly qualified engineer registered in California and experienced in the field of wastewater treatment, and shall contain (1) a description of the design of the recycled water system; (2) a contingency plan which will assure that no untreated or inadequately treated wastewater will be delivered to the use areas; and (3) a cross- connection control program (title 17 of the Cal.Code Regs) where a dual-plumbed system is used. Engineering reports shall clearly indicate the means for compliance with CCR title 22 regulations and this Order.

2.3.3. Prior to the initial operation of any dual-plumbed recycled water system, and annually thereafter, the Permittee shall ensure that the dual-plumbed system within each facility and use area is inspected for possible cross connections with the potable water system. The recycled water system shall also be tested for possible cross connections at least once every four years. The testing shall be conducted in accordance with the method

described in the Engineering Report. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements. A written report documenting the result of the inspection or testing for the prior year shall be submitted to DDW and the Regional Water Board by March 1 of each year. [Cal.Code Regs., title 22, § 60316]

2.3.4. The Permittee shall submit and maintain an up-to-date Recycled Water Irrigation Operation and Management Plan that includes the following:

2.3.4.1. A list of all recycled water users receiving or proposing to receive recycled water, the type of use for each user, the acreage and estimated amount of recycled water use at each use site; the method(s) of conveyance to each user; name(s) of the Recycled Water Use Supervisor at each use site, and maps of each use area.

2.3.4.1.1. Attachment J of this Order provides a list of existing recycled water uses site; and

2.3.4.1.2. Attachment J will be updated by the Regional Water Board Executive Officer to include new use sites if and when the Permittee submits the required CEQA and technical information for proposed new use sites and receives approval from the Regional Water Board Executive Officer.

2.3.4.2. For uses with frequent or routine application (such as irrigation), the Plan shall specify hydraulic and nutrient agronomic rates and demonstrate that the use areas will not exceed these rates, and identify BMPs that are protective of groundwater and surface water quality and human health. At a minimum, the Permittee shall implement the required BMPs identified in Recycled Water Requirement 2.1.11 and implement other BMPs as appropriate.

2.3.4.3. For uses with infrequent or non-routine applications (such as frost protection), the Plan shall specify a list of practices to ensure compliance with this Order.

2.3.4.4. The Plan may include a water and nutrient budget for use area(s), use area supervisor training, periodic inspections, or other appropriate measures.

2.3.4.5. A description of the recycled water operations and maintenance program, including a description of maintenance of equipment and emergency backup systems to maintain compliance with the use area requirements of this Order.; and

2.3.4.6. Emergency procedures and notification.

2.3.5. The Permittee shall submit and maintain a Water Recycling Administration report that includes:

2.3.5.1. A full description of the Permittee's water recycling program, including:

2.3.5.1.1. Description of the Permittee's authority, rules, and/or regulations;

2.3.5.1.2. Design and implementation of the recycled water program;

2.3.5.1.3. Cross-connection testing responsibilities and procedures;

2.3.5.1.4. Monitoring and reporting program (MRP), if different from the MRP specified in this Order;

2.3.5.1.5. Recycled water use area inspection program;

2.3.5.1.6. Compliance program;

2.3.5.1.7. The Permittee's training program for its employees and use area supervisors; and

2.3.5.1.8. Methods used to document that recycled water program procedures are followed (i.e., documentation of cross-connection testing, inspections, and employee and user training).

2.3.5.2. A description of the organization and responsibilities of pertinent personnel involved in the water recycling program, including:

2.3.5.2.1. Organizational chart;

2.3.5.2.2. The name(s), title(s), and phone number(s) of contact person(s) who are charged with operation/oversight of the water recycling program, including the Permittee's recycled water staff and identification of Recycled Water Use Supervisors at each use site;

2.3.5.2.3. Identification of all agencies or entities involved in the production, distribution, and use of recycled water;

2.3.5.2.4. A description of legal arrangements, such as, but not limited to, charters, agreements, or Memorandum of Understanding, and inclusion of such legal documents.

ATTACHMENT J - APPROVED RECYCLED WATER USE SITES

The recycled water use sites identified in the table below and on the attached map are approved recycled water use sites. The environmental impacts at these recycled water use sites were addressed in the following certified environmental documents (certification date in parentheses):

September 1993 Forestville and Graton Wastewater Treatment Facilities Improvement Project Environmental Impact Report (December 14, 1993) and October 1999 Technical Memorandum, Wastewater Reclamation and Disposal Facilities Upgrade Project for Forestville County Sanitation District (March 2000).

Table J-1. Approved Recycled Water Use Sites

Map ID	Customer	APN	Acres Irrigated	Total Site Acreage	Use	Irrigation Type	Estimate of Current Annual Recycled Water Use (acre-feet)
1	Earl Stephens	084-040-001	10	11	Vineyard	Drip and Microspray	3.9
3	Marshall Property (Don Marshall)	084-180-029	1.5	2	Mixed Plant	Drip and Spray	0.30
4	Nancy Carroll	084-050-022	3.5	4.2	Mixed Plant	Drip and Spray	2.3
8	Rawah Vineyards previously known as Crinella Properties (Jim Pratt)	084-031-060 084-031-061 084-031-062 084-031-063	19.2	69	Vineyard	Drip and Microspray	7.8
10	Iron Horse Vineyards (Laurence Sterling)	084-040-009 084-180-001 084-190-001	160	220	Vineyard	Drip and Spray	40.0
12	Ron Rubin Vineyards previously known as River Road Vineyards (William Thiersch)	084-160-003	8.7	12	Vineyard	Drip and Microspray	3.7

Map ID	Customer	APN	Acres Irrigated	Total Site Acreage	Use	Irrigation Type	Estimate of Current Annual Recycled Water Use (acre-feet)
14	Forestville Elementary School (Chuck Fish)	083-073-009 083-073-012 083-073-014 083-073-016 084-010-005 084-020-027	0	15	Turf Irrigation	Spray	0
15	West Sonoma County Union School District El Molino High School (Jennie Bruneman)	083-030-041 083-030-061 083-060-030 083-060-041	11.6	39	Turf Irrigation	Spray	17.8
16	Forestville Youth Park (Scott Brown)	083-120-089 083-120-095	3.2	8.4	Turf Irrigation	Spray	7.8
19	David Beck & Marjorie Clark	084-150-020	1.1	10	Mixed Plant	Drip and Hand	0.66
Total			**218.8**				**84.3**

ATTACHMENT K - MAP OF APPROVED RECYCLED WATER USE SITES