Effective February 1, 2022

California Regional Water Quality Control Board
North Coast Region
Revised Monitoring and Reporting Program
Order No. R1-2021-0021

for the

City of Willits
City of Willits Wastewater Treatment Facility

NPDES No. CA0023060
WDID No. 1B80078OMEN
Sonoma County

This Revised Monitoring and Reporting Program (MRP) rescinds and replaces the MRP included within Order No. R1-2021-0021 (Order) adopted by the North Coast Regional Water Quality Control Board (Regional Water Board) on December 2, 2021. This revised MRP is necessary to include the requirement for the City of Willits (Permittee) to participate in the State's Discharge Monitoring Report Quality Assurance (DMR-QA) Study. This Revised MRP becomes effective February 1, 2022.

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 monthly 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 13176, 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 written 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 or 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.

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 analytical methods listed in the SIP. 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**. U.S. EPA, under the authority of section 308 of the CWA (33 U.S.C. § 1318), requires major and select minor 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 participate in the DMR-QA program and 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.

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	Influent at the headworks of the wastewater treatment facility (WWTF) prior to treatment and consisting of wastewater from both the collection system and septage receiving station (see Attachment C, Figure C-3).
---	INF-002	Influent diverted from the secondary influent splitter box to the equalization basins (see Attachment C, Figure C-3).
---	INF-003	Influent returned from the equalization basins to the headworks (see Attachment C, Figure C-3).
---	INT-001	Location for calculating ultraviolet (UV) radiation dose and UV transmittance of the UV disinfection system.
---	INT-002	Treated wastewater from the portion of the WWTF downstream of the disinfection processes and prior to the enhancement wetland.

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
003	EFF-003	Treated effluent from the WWTF downstream of the enhancement wetland and prior to contact with Outlet Creek. Latitude: 39°25'38" Longitude: -123°20'37"
004	EFF-004	Treated effluent from the WWTF downstream of the enhancement wetland and prior to effluent application to reclamation use area(s). Latitude: 39°25'38" Longitude: -123°20'35"
---	RSW-001	Outlet Creek surface water at the confluence of Baechtel and Broaddus Creeks upstream of and beyond the influence of the discharge.
---	RSW-003	Outlet Creek surface water at the point of discharge of Discharge Point 003.
---	RSW-004	Outlet Creek surface water approximately 500 feet downstream of Discharge Point 003.
---	SEP-001	Septage receiving station after complete mixing of septage wastes and prior to the WWTF headworks.
---	BIO-001	A representative sample of the sludge or biosolids generated when removed for disposal.

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes.

3. INFLUENT MONITORING REQUIREMENTS

Total influent shall be metered at INF-001. During periods when high influent flows are diverted to the equalization basins, diverted flow shall be measured at INF-002. Flows returning from the equalization basins shall be measured at INF-003 then measured for a second time at INF-001. In order to account for flows passing through INF-001 twice, the flows passing through INF-003 shall be automatically subtracted from the measured value at INF-001.

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
Influent Flow [1,2]	mgd	Meter	Continuous	---
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	24-hr Composite	Weekly [3]	Standard Methods [4]
Total Suspended Solids (TSS)	mg/L	24-hr Composite	Weekly [3]	Standard Methods [4]

Table Notes

1. Each month, the Permittee shall report average daily and average monthly flows.
2. To account for flows passing through INF-001 twice, the flows passing through INF-003 shall be automatically subtracted from the measured value at INF-001.
3. Monitoring of BOD_5 and TSS in the influent shall occur near simultaneously with effluent monitoring for the same parameters.
4. 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.

3.2. **Monitoring Location INF-002**

3.2.1. The Permittee shall monitor influent diverted from the secondary influent splitter box to the equalization basins at Monitoring Location INF-002 as follows:

Table E-3. Influent Monitoring – Monitoring Location INF-002

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

Table Notes

1. Each month, the Permittee shall report average daily and average monthly flows.

3.3. **Monitoring Location INF-003**

3.3.1. The Permittee shall monitor influent diverted from the equalization basins to the headworks at Monitoring Location INF-003 as follows:

Table E-4. Influent Monitoring – Monitoring Location INF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow [1]	mgd	Meter	Continuous	---
Table Notes 1. Each month, the Permittee shall report average daily and average monthly flows.				

4. **EFFLUENT MONITORING REQUIREMENTS**

4.1. **Monitoring Location INT-002**

4.1.1. The Permittee shall monitor treated wastewater downstream from the disinfection system at Monitoring Location INT-002 as follows:

Table E-5. Effluent Monitoring – Monitoring Location INT-002

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow [1]	mgd	Meter	Continuous	---
Biochemical Oxygen Demand 5-day @ 20°C (BOD_5)	mg/L	24-hr Composite	Weekly [2]	Standard Methods [3]
Total Suspended Solids (TSS)	mg/L	24-hr Composite	Weekly [2]	Standard Methods [3]
pH	s.u.	Grab	Weekly [2,4]	Standard Methods [3]
Temperature	°C	Grab	Monthly [4]	Standard Methods [3]
Total Coliform Bacteria	MPN/100 mL	Grab	Weekly [2]	Standard Methods [3]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [3]
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [3]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Nitrite Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [3]
Organic Nitrogen	mg/L	Grab	Monthly	Standard Methods [3]
Nitrogen, Total (as N)	mg/L	Calculate	Monthly [5]	Standard Methods [3]
Total Dissolved Solids	mg/L	Grab	Monthly	Standard Methods [3]

Table Notes

1. Each month, the Permittee shall report the daily average and monthly average flows.
2. Accelerated Monitoring Weekly Samples. If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two samples each of the two 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 to return to compliance.
3. 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.
4. pH and temperature monitoring must coincide with monthly monitoring for ammonia.
5. Accelerated Monitoring. If the test result exceeds an effluent limitation, the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the pollutant source and take steps needed to return to compliance.

4.2. **Monitoring Location EFF-003**

4.2.1. The Permittee shall monitor treated wastewater from the enhancement wetland at Monitoring Location EFF-003 during periods of discharge to Outlet Creek at Discharge Point 003 as follows:

Table E-6. Effluent Monitoring – Monitoring Location EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Effluent Flow [1]	mgd	Meter	Continuous	---
Discharge Rate	%	Calculate [2]	1/day	---
Settleable Solids	mL/L	24-hr Composite	Weekly [3]	Standard Methods [4]
pH	s.u.	Grab	Weekly [3,5]	Standard Methods [4]
Temperature	°C	Grab	Monthly [5]	Standard Methods [4]
E. coli Bacteria [10]	MPN or CFU/100 mL	Grab	Weekly	Standard Methods [4]
Zinc Total Recoverable	µg/L	Grab	Monthly [6]	Standard Methods [4]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly [6]	Standard Methods [4]
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [4]
Nitrite Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [4]
Organic Nitrogen	mg/L	Grab	Monthly	Standard Methods [4]
Nitrogen, Total (as N)	mg/L	Calculate	Monthly [6]	Standard Methods [4]
Hardness, Total (as $CaCO_3$)	mg/L	Grab	Monthly	Standard Methods [4]
Phosphorus, Total (as P)	mg/L	Grab	Monthly	Standard Methods [4]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Acute toxicity	Pass or Fail, % Survival, and % Effect	24-hr Composite	2x/Year [7]	See Section 5 below:
Chronic Toxicity	Pass or Fail, and % Effect	24-hr Composite	2x/Year [7]	See Section 5 below:
CTR Priority Pollutants [8]	µg/L	Grab	Annually	Standard Methods [4,9]

Table Notes

1. Each month, the Permittee shall report the daily average and monthly average flows.
2. The Permittee shall calculate and report the discharge rate as a percent of the upstream receiving water flow, as measured at Monitoring Location RSW-001.
3. Accelerated Monitoring Weekly Samples. If two consecutive weekly test results exceed an effluent limitation, the Permittee shall take two samples each of the two 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 to return to compliance.
4. 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.
5. pH and temperature monitoring must coincide with monthly monitoring for ammonia.
6. Accelerated Monitoring. If the test result exceeds an effluent limitation, the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. During the intervening period, the Permittee shall take steps to identify the pollutant source and take steps needed to return to compliance.
7. Monitoring shall occur during the first month of surface water discharge and during the second consecutive month thereafter (i.e., if monitoring occurs in November, consecutive monitoring shall be performed in January).
8. 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 annual priority pollutant sample.
9. 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.
10. MPN and CFU are comparable units. The permittee may use any *E. coli* method specified in 40 CFR 136 for compliance monitoring.

5. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

5.1. Acute Toxicity Testing

The Permittee shall conduct acute whole effluent toxicity testing (WET) in accordance with the following acute toxicity testing requirements.

5.1.1. **Test Frequency.** The Permittee shall conduct acute WET testing in accordance with the schedule established by this MRP while discharging at Discharge Point 003, as summarized in Table E-6, above.

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

5.1.3. **Sample Volume and Holding Time.** The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

5.1.4. **Freshwater Test Species and Test Methods.** The Permittee shall conduct the following acute toxicity tests in accordance with species and test methods in Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (U.S. EPA Report No. EPA-821-R-02-012, 5th edition or subsequent editions). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

5.1.4.1. A 96-hour static renewal toxicity test with an invertebrate, the water flea, *Ceriodaphnia dubia* (Survival Test Method 2002.0).

5.1.4.2. A 96-hour static renewal toxicity test with a vertebrate, the rainbow trout, *Oncorhynchus mykiss* (Survival Test Method 2019.0).

5.1.5. **Species Sensitivity Screening.** Species sensitivity screening shall be conducted during this Order's first required sample collection. The Permittee shall collect a single effluent sample and concurrently conduct two acute toxicity tests using the invertebrate and fish species identified in section 5.1.4, above. This sample shall also be analyzed for the parameters required for the discharge. The species that exhibits the highest "Percent (%) Effect" at the discharge IWC during species sensitivity screening shall be used for routine acute toxicity monitoring during the permit term.

5.1.6. **Quality Assurance and Additional Requirements.** Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual referenced in section 5.1.4, above. Additional requirements are specified below.

5.1.6.1. The discharge is subject to determination of “Pass” or “Fail” and “Percent (%) Effect” from acute toxicity tests using the Test of Significant Toxicity (TST) approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST approach is: Mean discharge IWC response ≤ 0.80 × Mean control response. A test result that rejects this null hypothesis is reported as “Pass”. A test result that does not reject this null hypothesis is reported as “Fail”. The relative “Percent (%) Effect” at the discharge IWC is defined and reported as: ((Mean control response – Mean discharge IWC response) ÷ Mean control response)) × 100.

5.1.6.2. If the effluent toxicity test does not meet the minimum effluent test acceptability criteria (TAC) specified in the referenced test method, then the Permittee shall re-sample and re-test within 7 days.

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

5.1.6.4. Test procedures related to pH control, sample filtration, aeration, temperature control and sample dechlorination shall be performed in accordance with the U.S. EPA method and fully explained and justified in each acute toxicity report submitted to the Regional Water Board. The control of pH in acute toxicity tests is allowed, provided the test pH is maintained at the effluent pH measured at the time of sample collection, and the control of pH is done in a manner that has the least influence on the test water chemistry and on the toxicity of other pH sensitive materials such as some heavy metals, sulfide and cyanide.

5.1.6.5. **Ammonia Toxicity.** The acute toxicity test shall be conducted without modifications to eliminate ammonia toxicity.

5.1.7. **Notification.** The Permittee shall notify the Regional Water Board verbally within 72 hours and in writing 14 days after receipt of test results exceeding the acute toxicity effluent limitation during regular or accelerated monitoring. The notification shall describe actions the Permittee has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by this Order, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

5.1.8. **Accelerated Monitoring Requirements.** If the result of any acute toxicity test fails to meet the single test minimum limitation (70 percent survival), and the testing meets all TAC, the Permittee shall take two more samples, one within 14 days and one within 21 days following receipt of the initial sample result. If any one of the additional samples do not comply with the three-sample median

minimum limitation (90 percent survival), the Permittee shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with section 5.3 of the MRP. If the two additional samples are in compliance with the acute toxicity requirement and testing meets all TAC, then a TRE will not be required. If the discharge stops before additional samples can be collected, the Permittee shall contact the Executive Officer within 21 days with a plan to demonstrate compliance with the effluent limitation.

5.1.9. **Reporting.** The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test (WET report). The WET report shall be prepared using the format and content of section 12 (Report Preparation) of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (U.S. EPA Report No. EPA-821-R-02-012, 5th edition or subsequent editions), including:

5.1.9.1. The toxicity test results in percent (%) survival for the 100 percent effluent sample.

5.1.9.2. The toxicity test results for the TST approach, reported as “Pass” or “Fail” and “Percent (%) Effect” at the acute toxicity IWC for the discharge.

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

5.1.9.4. TRE/Toxicity Identification Evaluation (TIE) results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses.

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

5.2. **Chronic Toxicity Testing**

The Permittee shall conduct chronic toxicity testing in accordance with the following chronic toxicity testing requirements:

5.2.1. **Test Frequency.** The Permittee shall conduct chronic WET testing in accordance with the schedule established by this MRP while discharging at Discharge Point 003 as summarized in Table E-6 above.

5.2.2. **Discharge IWC for Chronic Toxicity.** The chronic toxicity IWC for this discharge is 100 percent effluent.

5.2.3. **Sample Volume and Holding Time.** The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

5.2.4. **Freshwater Test Species and Test Methods.** The Permittee shall conduct the following chronic toxicity tests in accordance with species and test methods in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms (U.S. EPA Report No. EPA-821-R-02-013, or subsequent editions). In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

5.2.4.1. A 96-hour static renewal or static non-renewal toxicity test with a vertebrate, the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0).

5.2.4.2. A 96-hour static renewal or static non-renewal toxicity test with an invertebrate, the water flea, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.01).

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

5.2.5. **Species Sensitivity Screening.** Species sensitivity screening shall be conducted during this Order's first required sample collection. 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 5.2.4, above. This sample shall also be analyzed for the parameters required for the discharge. 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.

5.2.6. **Quality Assurance and Additional Requirements.** Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

5.2.6.1. The discharge is subject to determination of "Pass" or "Fail" and "Percent (%) Effect" for chronic toxicity tests using the TST approach described in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R10-003, 2010), Appendix A, Figure A-1, and Table A-1. The null hypothesis (Ho) for the TST approach is mean discharge IWC response 0.75 × mean control response. A test result that rejects this null hypothesis is reported as "Pass".

A test result that does not reject this null hypothesis is reported as "Fail". The relative "Percent (%) Effect" at the discharge IWC is defined and reported as: ((mean control response – mean discharge IWC response) ÷ mean control response) × 100.

5.2.6.2. If the effluent toxicity test does not meet the minimum effluent or reference toxicant test acceptability criteria (TAC) specified in the referenced test method, then the Permittee shall re-sample and re-test within 14 days.

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

5.2.6.4. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported.

5.2.6.5. The Permittee shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the MRP and the rationale is explained in the Fact Sheet (Attachment F).

5.2.6.6. **Ammonia Removal.** Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Permittee must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent.

The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.

5.2.6.6.1. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.

5.2.6.6.2. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.

5.2.6.6.3. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

5.2.6.6.4. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.

5.2.7. **Notification.** The Permittee shall notify the Regional Water Board verbally within 72 hours and in writing within 14 days after the receipt of a result of "Fail" during routine or accelerated monitoring.

Accelerated Monitoring Requirements. The trigger for accelerated monitoring for chronic toxicity is exceeded when a chronic toxicity test, analyzed using the TST approach, results in "Fail" and the "Percent Effect" is ≥0.50. Within 24 hours of the time the Permittee becomes aware of a summary result of "Fail", the Permittee shall implement an accelerated monitoring schedule consisting of four toxicity tests—consisting of 5-effluent concentrations (including the discharge IWC) and a control—conducted at approximately 2-week intervals, over an 8-week period. If each of the accelerated toxicity tests results is "Pass," the Permittee shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results is "Fail", the Permittee shall immediately implement the TRE Process conditions set forth in section 5.3, below.

5.2.8. **Reporting**

5.2.8.1. **Routine Reporting.** Chronic toxicity monitoring results for effluent at Monitoring Location EFF-003 shall be submitted with the quarterly self-monitoring report (SMR) for the quarter in which chronic toxicity monitoring was performed. Routine reporting shall include the following in order to demonstrate compliance with permit requirements:

5.2.8.1.1. 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:

5.2.8.1.1.1. 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);

5.2.8.1.1.2. The source and make-up of the lab control/diluent water used for the test;

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

5.2.8.1.1.4. Tabular summary of test results for control water and each effluent dilution and statistics summary to include calculation of the NOEC, TUc, and IC25;

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

5.2.8.1.1.6. WET test results shall include, at a minimum, for each test:

5.2.8.1.1.6.1. Sample date(s);

5.2.8.1.1.6.2. Test initiation date;

5.2.8.1.1.6.3. Test species;

5.2.8.1.1.6.4. Determination of "Pass" or "Fail" and "Percent Effect" following the TST hypothesis testing approach in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010). The "Percent Effect" shall be calculated as follows:

"Percent Effect" (or Effect, in %) = ((Control mean response – IWC mean response) ÷ Control mean response)) x 100

5.2.8.1.1.6.5. End point values for each dilution (e.g., number of young, growth rate, percent survival);

5.2.8.1.1.6.6. NOEC value(s) in percent effluent;

5.2.8.1.1.6.7. IC15, IC25, IC40, and IC50 values (or EC15, EC25…etc.) in percent effluent;

5.2.8.1.1.6.8. TUc values (100/NOEC);

5.2.8.1.1.6.9. Mean percent mortality (±s.d.) after 96 hours in 100 percent effluent (if applicable);

5.2.8.1.1.6.10. NOEC and LOEC values for reference toxicant test(s);

5.2.8.1.1.6.11. IC50 or EC50 value(s) for reference toxicant test(s);

5.2.8.1.1.6.12. Available water quality measurements for each test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, ammonia);

5.2.8.1.1.6.13. Statistical methods used to calculate endpoints;

5.2.8.1.1.6.14. The statistical program (e.g., TST calculator, CETIS, etc.) output results, which includes the calculation of percent minimum significant difference (PMSD); and

5.2.8.1.1.6.15. Results of applicable reference toxicant data with the statistical output page identifying the species, NOEC, LOEC, type of toxicant, dilution water used, concentrations used, PMSD and dates tested; the reference toxicant control charts for each endpoint, to include summaries of reference toxicant tests performed by the contracting

laboratory; and any information on deviations from standard test procedures or problems encountered in completing the test and how the problems were resolved.

5.2.8.2. **TRE/TIE Results.** The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. TRE/TIE results shall be submitted to the Regional Water Board within 60 days of completion.

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

5.3.1. **TRE Work Plan.** The Permittee submitted a TRE Work Plan to the Regional Water Board on March 1, 2016. The Permittee's TRE Work Plan shall be reviewed for consistency with permit requirements and the Permittee's procedures and updated as necessary in order to remain current and applicable to the discharge and requirements of this Order.

The Permittee shall notify the Regional Water Board of this review and submit any revisions of the TRE Work Plan within 90 days of the notification, to be ready to respond to toxicity events. The TRE Work Plan shall describe the steps the Permittee intends to follow if toxicity is detected, and should include at least the following items:

5.3.1.1. 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.

5.3.1.2. 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.

5.3.1.3. 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).

5.3.2. **Preparation and Implementation of a Detailed TRE Work Plan.** If one of the accelerated toxicity tests described in section 5.1.8, above, results in "Fail", the Permittee shall immediately initiate a TRE using EPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations* (EPA/600/2-88/070, 1989) and within 30 days of receipt submit the accelerated monitoring result to the Executive Officer. The Permittee shall also submit a Detailed TRE Work Plan, which shall follow the generic TRE Work Plan revised as appropriate for the toxicity event described in section 5.1.8 of this MRP. The Detailed TRE Work Plan shall include the following information, and comply with additional conditions set by the Executive Officer:

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

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

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

5.3.3. **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.

5.3.4. 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.

5.3.5. The Permittee shall conduct routine effluent monitoring for the duration of the TRE process. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

5.3.6. 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

7.1. Monitoring Location EFF-004

7.1.1. The Permittee shall monitor effluent from the enhancement wetland at Monitoring Location EFF-004 during periods of application to reclamation use area(s) as follows:

Table E-7. Recycled Water Monitoring – Monitoring Location EFF-004

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

Table Notes

1. Each month, the Permittee shall report the daily average and monthly average flows.
2. 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.
3. Monitoring for nitrate, nitrite, ammonia, and organic nitrogen is for the purpose of determining total nitrogen concentration for agronomic rate calculations.
4. The monitoring frequency for total dissolved solids, chloride, boron, and sodium may be reduced to annually if the first 12 months of monitoring data collected after the effective date of this Order demonstrate that concentrations of these constituents are consistently lower than water quality objectives for protection of groundwater.
5. During periods of discharge to the irrigation system, visual observations shall be conducted at least monthly for agronomic applications to verify compliance with recycled water requirements in Order section 4.3, Recycling Specifications and Requirements. The inspection frequency shall be increased for use sites with a

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
history of non-compliance with water recycling requirements established in this Order. Visual monitoring shall confirm proper operations of the recycled water system and associated BMPs. The Permittee shall include a record of any malfunctions or findings of improper operations, including, but not limited to odors, evidence of surface run-off, or ponding that exceeds 24 hours. Visual observations may be performed by the irrigation users in accordance with the Permittee's user agreements. The quarterly recycled water report 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.				

7.2. **Recycled Water Production and Use**

7.2.1. Recycled water quality characteristics and precipitation data shall be used to ascertain nitrogen loading rates at each recycled water use site. The information in Table E-8 shall be reported for each use site type.

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

Table E-8. Recycled Water Production and Use.

Parameter	Units	Sample Type	Frequency	
			Sampling	Reporting
Volume of Recycled Water [1,2]	acre-feet	Meter	Monthly [3]	Annually
Total Area of Application	acres	Observation	Monthly	Annually
Total Nitrogen Application Rate [4,5]	lbs/acre-month	Calculation	Monthly	Annually
Rainfall	inches	Gage	Daily	Annually

Table Notes

1. Estimation of the volume of the recycled water shall not include other potable or non-potable "make-up" water used in conjunction with recycled water.
2. May be estimated based on daily percentage of recycled water supplied via a non-potable water supply system.
3. May be based on available data (e.g., meters read every other month or quarterly).

Parameter	Units	Sample Type	Frequency	
			Sampling	Reporting
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". For example, nitrate-nitrogen = 27 mg/L as NO3 shall be converted and reported as nitrate-nitrogen = 6 mg/L as N.				

8. RECEIVING WATER MONITORING REQUIREMENTS - SURFACE WATER AND GROUNDWATER

8.1. Monitoring Location RSW-001

8.1.1. The Permittee shall monitor Outlet Creek at Monitoring Location RSW-001 when discharging to surface water as follows:

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

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Gauge or Meter [1]	Daily	---
Visual Observations	---	Visual [2]	Weekly	---
pH	s.u.	Grab	Monthly [3]	Standard Methods [4]
Dissolved Oxygen	mg/L	Grab	Monthly	Standard Methods [4]
Electrical Conductivity @ 25ºC	µmhos/cm	Grab	Monthly	Standard Methods [4]
Hardness, Total (as $CaCo_3$)	mg/L	Grab	Monthly	Standard Methods [4]
E. coli Bacteria [5]	CFU/100 mL	Grab	Monthly	Standard Methods [4]
Temperature	ºC	Grab	Monthly [3]	Standard Methods [4]
Turbidity	NTU	Grab	Monthly	Standard Methods [4]
Ammonia Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [4]
Nitrate Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [4]
Nitrite Nitrogen, Total (as N)	mg/L	Grab	Monthly	Standard Methods [4]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Organic Nitrogen	mg/L	Grab	Monthly	Standard Methods [4]
Nitrogen, Total (as N)	mg/L	Calculate	Monthly	Standard Methods [4]
Phosphorus, Total (as P)	mg/L	Grab	Monthly	Standard Methods [4]
CTR Priority Pollutants [6]	µg/L	Grab	Annually	Standard Methods [4,7]

Table Notes

1. The flow rate shall be determined using the flow in Outlet Creek at United States Geological Survey (USGS) Gauge No. 11472180.
2. Visual observations shall be made for evidence of floatables (i.e., solids, liquids, foam, and scum), visible films (i.e., oils, greases, and waxes), aquatic growths, and discoloration. Observations shall be recorded and included in the monthly self-monitoring reports.
3. Monitoring for effluent and receiving water pH and temperature shall be conducted concurrently with effluent sampling for ammonia. Monitoring for pH and temperature at RSW-001 must be conducted concurrently with the ammonia effluent sample in order for the AMEL and MDEL AIR to be calculated properly.
4. 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.
5. MPN and CFU are comparable units. The permittee may use any *E. coli* method specified in 40 CFR 136 for compliance monitoring.
6. 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 annual priority pollutant sample. Monitoring shall occur simultaneously with effluent monitoring for CTR priority pollutants required by section 4.2 of this MRP.
7. 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.

8.2. **Monitoring Locations RSW-003 and RSW-004**

8.2.1. The Permittee shall monitor Outlet Creek at Monitoring Locations RSW-003 and RSW-004 when discharging to surface water as follows:

Table E-10. Receiving Water Monitoring – Monitoring Locations RSW-003 and RSW-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Visual Observations	---	Visual [1]	Weekly	---
pH	s.u.	Grab	Monthly [2]	Standard Methods [3]
Dissolved Oxygen	mg/L	Grab	Monthly	Standard Methods [3]
Electrical Conductivity @ 25ºC	µmhos/cm	Grab	Monthly	Standard Methods [3]
Temperature	ºC	Grab	Monthly [2]	Standard Methods [3]
Turbidity	NTU	Grab	Monthly	Standard Methods [3]

Table Notes

1. Visual observations shall be made for evidence of floatables (i.e., solids, liquids, foam, and scum), visible films (i.e., oils, greases, and waxes), aquatic growths, and discoloration. Observations shall be recorded and included in the monthly self-monitoring reports.
2. pH and temperature monitoring must coincide with monthly monitoring for ammonia.
3. 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.

8.3. Groundwater Monitoring

8.3.1. The Permittee shall monitor groundwater monitoring wells from all approved groundwater monitoring programs resulting from the biosolids application requirements included in Section 5.2. of Attachment G, Biosolids Standards and Provisions. Samples shall be analyzed for the parameters listed, and at the sampling frequency specified within Table G-4.

9. OTHER MONITORING REQUIREMENTS

9.1. Disinfection Process Monitoring for UV Disinfection System

9.1.1. Monitoring Location INT-001

9.1.1.1. **Monitoring.** The UV transmittance of the effluent from the UV disinfection system shall be monitored continuously and recorded at Monitoring Location INT-001. The operational UV dose shall be calculated from UV transmittance and flow.

9.1.1.2. **Compliance.** The UV transmittance shall not fall below 55 percent of maximum at any time, unless otherwise approved by DDW. The operational UV dose shall not fall below 50 millijoules per square centimeter (mJ/cm2) at any time, unless otherwise approved by DDW. Flow through the UV disinfection system shall not exceed 7.0 mgd, unless otherwise approved by DDW.

9.1.1.3. **Reporting.** The Permittee shall report daily average and lowest daily transmittance and operational UV dose on its monthly monitoring reports. The Permittee shall report daily average and minimum flow through the UV disinfection system. If the UV transmittance falls below 55 percent or UV dose falls below 50 mJ/cm2, the event shall be reported to the Regional Water Board and DDW by telephone within 24 hours. Any inadequately treated and disinfected wastewater shall be diverted to a storage basin or an upstream process for adequate treatment.

9.2. **Septage Station Monitoring**

9.2.1. Monitoring Location SEP-001

9.2.1.1. For each septage load delivered to the Facility, the Permittee shall require the hauler to collect and report a pH value representative of the load.

9.2.1.2. The Permittee shall estimate, prior to the beginning of a quarterly and semiannual monitoring period, the number of anticipated septage deliveries for the given monitoring frequency, and generate a random load number from this total. When the delivery corresponding to the pre-chosen random number is received, the Permittee will collect a representative septage sample and have the samples analyzed in accordance with Table E-12 and with standard sample collection and handling procedures. Each sample shall be analyzed in accordance with the following table.

Table E-11. Septage Monitoring – Monitoring Location SEP-001

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	Grab	Weekly	Standard Methods [1]
Chemical Oxygen Demand	mg/L	Grab	Quarterly	Standard Methods [1]
Oil and Grease	mg/L	Grab	Quarterly	Standard Methods [1]
Metals and Trace Elements	µg/L	Grab	Quarterly	Standard Methods [1]
Purgeable Organic Compounds [2]	µg/L	Grab	Semiannually	Standard Methods [1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Semivolatile Organic Compounds [3]	µg/L	Grab	Semiannually	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. Purgeable organic compounds shall include the parameters listed in U.S. EPA Method 624.
3. Semivolatile organic compounds shall include the parameters listed in U.S. EPA Method 625.

9.2.2. **Septage Hauler Tracking.** For any month when septage waste is received by the Facility, the source(s) of the waste shall be documented. A summary table of all septage discharged to the Facility shall be submitted quarterly and shall include:

9.2.2.1. Date and time of discharge;

9.2.2.2. Name, County identification number, and District identification number of the hauler;

9.2.2.3. Volume discharged;

9.2.2.4. Source(s) of the waste; and

9.2.2.5. pH of the septage load.

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

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

9.3.2. 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.

9.3.3. Biosolids sampling shall be further conducted per the Biosolids Monitoring and Reporting Program in Attachment G, Biosolids Standards and Provisions.

10. REPORTING REQUIREMENTS

10.1. General Monitoring and Reporting Requirements

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

10.2. Self-Monitoring Reports (SMRs)

10.2.1. 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 provision of training and supervision of individuals (e.g., Permittee personnel or consultant) on how to prepare and submit eSMRs.

10.2.2. The Permittee shall report in the SMR the results for all monitoring specified in this MRP under sections 3 through 9. 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.

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

10.2.4. 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 end of quarter (February 1, May 1, August 1, November 1)

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR Due Date
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 end of quarter (February 1, May 1, August 1, November 1)
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 end of quarter (February 1, May 1, August 1, November 1)
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 end of quarter (February 1, May 1, August 1, November 1)
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	First day of second calendar month following end of quarter (February 1, May 1, August 1, November 1)
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	September 1, each year March 1, each year
2X/Year	October 1 following (or on) permit effective date	October through May 14	August 1, each year
Annually	January 1 following (or on) permit effective date>	January 1 through December 31	March 1, each year

10.2.5. **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:

10.2.5.1. 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).

10.2.5.2. 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. 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.

10.2.5.3. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

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

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

10.2.6.1. 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.

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

10.2.6.2.1. Facility name and address;

10.2.6.2.2. WDID number;

10.2.6.2.3. Applicable period of monitoring and reporting;

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

10.2.6.2.5. Corrective actions taken or planned; and

10.2.6.2.6. The proposed time schedule for corrective actions and/or any corrective actions implemented.

10.2.6.3. 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).

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 website at http://www.waterboards.ca.gov/northcoast.

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

10.3.1. 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).

10.3.2. 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 at qualityassurance@waterboards.ca.gov. For more information on the DMR-QA Program, contact the State DMR-QA Coordinator at the aforementioned email address.

10.4. **Other Reports**

10.4.1. **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.

Table E-13. Reporting Requirements for Special Provisions Reports

Order Section	Special Provision Requirement	Reporting Requirement
Special Provision 6.3.2.1	Disaster Preparedness Assessment Report and Action Plan.	**December 1, 2023**
Special Provision 6.3.3.1	Pollutant Minimization Program	If required by the Regional Water Board Executive Officer
Special Provision 6.3.3.1.2.5	Pollutant Minimization Program, Annual Facility Report	**March 1**, annually, following development of Pollutant Minimization Program
Special Provision 6.3.5.2.1	Source Control and Pretreatment Provisions, Annual Report	**March 1,** annually
Special Provision 6.3.5.2.2.1	Source Control and Pretreatment Provisions, Notification of Discharges that Trigger Pretreatment Requirements	**Within 30 days** of discharges that trigger pretreatment requirements
Special Provision 6.3.5.2.2.2	Source Control and Pretreatment Provisions, Revised Report of Waste Discharge and Pretreatment Program	**Within 1 year** of discharges that trigger pretreatment requirements
Attachment D Standard Provisions Section 5.5.1	Notification of spills and unauthorized discharges.	**Oral reporting within 24 hours** and written report **within 5 days**
MRP Effluent Monitoring Requirement 5.2.9.2	Notification of TRE/TIE Results	**No later than 30 days** from the completion of each aspect of the TRE/TIE analyses.
MRP Effluent Monitoring Requirement 5.2.9.2	TRE/TIE Results	**Within 60 days** of completion of TRE/TIE analyses
MRP Effluent Monitoring Requirement 5.3.1	TRE Work Plan review and update (as necessary)	**February 1, 2022**
MRP Effluent Monitoring Requirement 5.3.2	Detailed TRE Work Plan	**Within 30 days** of an accelerated monitoring test that results in “Fail”

Order Section	Special Provision Requirement	Reporting Requirement
MRP Reporting Requirement 10.3.2	DMR-QA Study	**Annually**, per State Water Board instructions
MRP Reporting Requirement 10.4.2	Annual Report	**March 1, annually**
MRP Reporting Requirement 10.4.4	Annual Volumetric Reporting to GeoTracker	**April 30, annually**
MRP Reporting Requirement 10.5.1	Verbal and written notification of chronic toxicity fail result	**Within 72 hours** (verbal) and **14 days** (written) after receipt of a fail result.

10.4.2. **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 an alternate method of submitting the annual report is required, the Permittee shall submit the report to the e-mail address in section 10.2.6.3., above. The report shall be submitted by March 1st of the following year. The report shall, at a minimum, include the following:

10.4.2.1. Both tabular and, where appropriate, 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 SMR.

10.4.2.2. 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.

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

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

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

10.4.2.6. **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:

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

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

10.4.2.6.3. 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.

10.4.2.6.4. 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.

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

10.4.2.6.6. A summary of any industrial waste survey results.

10.4.2.6.7. 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.

10.4.2.7. **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:

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

10.4.2.7.2. Sludge monitoring results;

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

10.4.2.7.4. Methods of final disposal of sludge:

10.4.2.7.4.1. For any portion of sludge discharged to a sanitary landfill, the Permittee shall provide the volume of sludge transported to the land fill, 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.

10.4.2.7.4.2. For any portion of sludge discharged through land application, the Permittee shall provide the following:

10.4.2.7.4.2.1. 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.

10.4.2.7.4.2.2. A tabular summary of the constituent concentrations for any biosolids applied during the reporting period, historical and current pollutant loading, and background soil concentrations, for each application site per Table G-7 of the Biosolids Standards and Provisions.

10.4.2.7.4.2.3. Provide a site map identifying the area(s) of application clearly showing each field to which biosolids have been applied and crops planted.

10.4.2.7.4.3. 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.

10.4.2.7.5. 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.

10.4.2.8. **Groundwater Reporting.** The Permittee shall submit, as part of its annual report to the Regional Water Board, any groundwater monitoring data resulting from an approved biosolids groundwater monitoring program, as required in Section 5.2. of Attachment G, Biosolids Standards and Provisions.

10.4.2.9. **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 BMPs to control the run-on of storm water to the treatment facility site, as well as activities to maintain and upgrade these BMPs.

10.4.2.10. **Septage Monitoring and Reporting.** The results of septage monitoring shall be provided as follows:

10.4.2.10.1. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the septage monitoring program. The narrative shall be sufficiently detailed to verify compliance with waste discharge requirements and this MRP.

10.4.2.10.2. A summary table of all discharges of septage to the Facility. At a minimum, the table shall include: the name, County identification number, and District identification number of each hauler discharging to the Facility over the past calendar year.

10.4.2.10.3. A summary table of analytical results for all samples of septage collected in compliance with waste discharge requirements and this MRP. When directed by the Regional Water Board, the Permittee shall also append analytical reports, chains of custody, and other documentation necessary to confirm the validity of the monitoring samples.

10.4.3. **Water Recycling System**

10.4.3.1. **Water Recycling Operations Reporting.** The Permittee shall submit reports pertaining to the operation, performance, monitoring, and other activities related to water recycling as follows:

10.4.3.1.1. **Quarterly Recycled Water Report.** The Permittee shall submit a quarterly recycled water report, as required by section 13523.1(b)(4) of the Water Code and other requirements of this Order, containing the following information:

10.4.3.1.1.1. Name, location, and acreage of each recycled water use site;

10.4.3.1.1.2. Total volume of recycled water supplied to each recycled water user for each month of the reporting period;

10.4.3.1.1.3. A summary of recycled water use site inspections conducted by the Permittee or recycled water users. The Permittee shall report:

10.4.3.1.1.3.1. Inspection dates;

10.4.3.1.1.3.2. All observations of recycled water over-application, such as ponding and irrigation runoff, including the length of time that such conditions existed, and measures taken to correct the cause of over-application;

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

10.4.3.1.1.3.4. All equipment or process failures initiating an alarm, as well as any corrective and preventative actions taken; and

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

10.4.3.1.2. **Annual Recycled Water Report.** The annual report shall include but not be limited to the following:

10.4.3.1.2.1. A compliance summary and discussion of the compliance record for the prior calendar year, including:

10.4.3.1.2.1.1. In the event of noncompliance, the report shall also discuss the corrective actions taken and planned to bring the recycled water program into full compliance with this Order;

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

10.4.3.1.2.1.3. Identification of any other problems that occurred in the recycled water system during the prior year, including repeated occurrences of incidental runoff of which the Permittee is aware, and plans to rectify those problems in the coming year.

10.4.3.1.2.2. A summary of major repairs scheduled or completed that affected the recycled water system appurtenances and irrigation areas;

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

10.4.3.1.2.4. 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; and

10.4.3.1.2.5. A summary of recycled water production and use data, pursuant to Table E-8 in section 7.2 of the MRP.

10.4.4. **Annual Volumetric Reporting.** 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 Recycled Water Policy as described below:

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

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

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

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

10.4.4.3.2. 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.

10.4.5. **Annual Biosolids Reporting.** The Permittee shall electronically certify and submit an annual biosolids report to U.S. EPA by February 19 each year using U.S EPA's Central Data Exchange (CDX) Web Site (https://cdx.epa.gov/). Information regarding registration and use of U.S. EPA's CDX system is also available at the Web Site.

10.5. **Spill Notification**

10.5.1. **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 (5) 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 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:

10.5.1.1. Name and contact information of caller;

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

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

10.5.1.4. Surface water bodies impacted, if any;

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

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

10.5.1.7. Responding agencies.

10.5.2. **Sanitary Sewer Overflows.** Notification and reporting of sanitary sewer overflows is conducted in accordance with the requirements of Order No. 2006-0003-DWQ (Statewide General WDRs for Sanitary Sewer Systems), which is not incorporated herein by reference, and any revisions thereto.

10.5.3. **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:

10.5.3.1. **Secondary Recycled Water.** Secondary Recycled Water means "disinfected secondary 23 recycled water" as defined by DDW or wastewater receiving advanced treatment beyond disinfected secondary 23 recycled water.

10.5.3.1.1. For unauthorized discharges of 50,000 gallons or more of secondary 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.

10.5.3.1.2. For unauthorized discharges of more than 1,000 gallons, but less than 50,000 gallons of secondary 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.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the forgoing is a full, true, and correct Revised copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on December 2, 2021 and Revised effective February 1, 2022.

Digitally signed by Matthias St John
Date: 2022.01.06 15:28:59 -08'00'

Issued By: _____
Water Boards

Matthias St. John
Executive Officer