

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION**

**MONITORING AND REPORTING PROGRAM R5-2024-0005**

FOR

BEAR VALLEY COMMUNITY SERVICES DISTRICT

BEAR VALLEY COMMUNITY SERVICES DISTRICT WASTEWATER TREATMENT FACILITY  
KERN COUNTY

This Monitoring and Reporting Program (MRP), which is separately issued pursuant to California Water Code section 13267, subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements Order R5-2024-0005 (WDRs Order). Each of the Findings set forth in the WDRs Order, including those pertaining to the need for submission of reports, are hereby incorporated as part of this MRP.

The Bear Valley Community Services District Wastewater Treatment Facility (WWTF or Facility) is owned and operated by Bear Valley Community Services District (Discharger). Bear Valley Community Services District also owns the Bear Valley Oak Tree Country Club golf course to which recycled water from the Facility is discharged. However, the golf course is managed by Bear Valley Springs Association. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

A glossary of terms used in this MRP is included on the last page.

This MRP may be separately revised by the Executive Officer, in accordance with their delegated authority under Water Code section 13223.

**I. GENERAL MONITORING REQUIREMENTS**

**A. FLOW MONITORING**

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. The measurements shall be based on flow meter readings. The method of measurement must be specified. Unless otherwise specified, each flow meter shall be equipped with a flow totalizer to allow reporting of cumulative volume as well as instantaneous flow rate. Flow meters shall be calibrated at the frequency recommended by the manufacturer; typically, at least once per year and records of calibration shall be maintained for review upon request.

**B. MONITORING AND SAMPLING LOCATIONS**

Samples and measurements shall be obtained at the monitoring points specified in this MRP. Central Valley Water Board staff shall approve any proposed changes to sampling locations prior to implementation of the change.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this MRP:

**Table 1. Monitoring Locations**

| Discharge Point | Monitoring Location | Monitoring Location Description  |
|-----------------|---------------------|--|
| --              | INF-001             | A location where a representative sample of the influent into the Facility can be collected prior to any WWTF return flows or treatment processes.                       |
| 001             | EFF-001A            | When discharging to Sycamore Creek, final disinfected tertiary-treated effluent after the chlorine contact chamber, prior to discharge to the storage pond.              |
| 001             | EFF-001B            | When discharging to Sycamore Creek, final disinfected tertiary-treated effluent in (near outlet) or after the storage pond, prior to discharge to Sycamore Creek.        |
| 002             | EFF-002A            | When discharging recycled water, final disinfected tertiary recycled water after the chlorine contact chamber, prior to discharge to the storage pond.                   |
| 002             | EFF-002B            | When discharging recycled water, final disinfected tertiary recycled water in (near outlet) or after the storage pond, prior to discharging recycled water to use areas. |
| --              | PND-001             | A location where a representative sample of the storage pond can be collected, prior to discharging to Sycamore Creek or the reclamation area.                           |
| --              | RSW-001             | Sycamore Creek, at the concrete flume approximately 150 feet upstream of Discharge Point 001 (approximately 35.166944, -118.664167)                                      |
| --              | RSW-002             | Sycamore Creek, approximately 50 feet downstream of Discharge Point 001 (approximately 35.167222, -118.664722)   |
| --              | BIO-001             | Representative of the biosolids shipped offsite for disposal and/or composting.  |
| --              | SPL-001             | Representative of water supply for the area served by the Facility.  |
| --              | FIL-001             | A location where a representative sample of the influent to the filtration system can be obtained.   |
| --              | FIL-002             | A location where a representative sample of the effluent from the filtration system prior to the chlorine contact chamber can be obtained.                               |

**C. SAMPLING AND SAMPLE ANALYSIS**

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. Except as specified otherwise in this MRP, grab samples will be considered representative of water, wastewater, soil, solids/sludges and groundwater.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to measure pH, temperature, electrical conductivity, total residual chlorine, dissolved oxygen, wind speed, and precipitation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated at the frequency recommended by the manufacturer;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

Laboratory analytical procedures shall comply with the methods and holding times specified in the following (as applicable to the medium to be analyzed):

- *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA);
- *Test Methods for Evaluating Solid Waste* (EPA);
- *Methods for Chemical Analysis of Water and Wastes* (EPA);
- *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA);
- *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and
- *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125).

Approved editions shall be those that are approved for use by the United States Environmental Protection Agency (EPA) or the State Water Resources Control Board (State Water Board), Division of Drinking Water's Laboratory Accreditation Program (ELAP). The Discharger may propose alternative methods for approval by the Executive Officer. Where technically feasible, laboratory reporting limits shall be lower than the applicable water quality objectives for the constituents to be analyzed.

## **II. SPECIFIC MONITORING REQUIREMENTS**

### **A. INFLUENT MONITORING (INF-001)**

The Discharger shall monitor the influent to the Facility at Monitoring Location INF-001 as described in Table 1. At a minimum, influent shall be monitored as specified in Table 2 below:

**Table 2. Influent Monitoring (INF-001)**

| Constituent/Parameter                                  | Units    | Sample Type               | Frequency |
|--|----------|---------------------------|-----------|
| Biochemical Oxygen Demand (5-day @ 20 degrees Celsius) | mg/L     | 24-hour Composite         | 1/Week    |
| Total Suspended Solids                                 | mg/L     | 24-hour Composite         | 1/Week    |
| Electrical Conductivity @ 25degrees Celsius            | µmhos/cm | Grab or 24-hour Composite | 1/Week    |

1. Influent and effluent samples shall be collected on the same day.

**B. EFFLUENT MONITORING EFF-001A**

The Discharger shall monitor disinfected tertiary-treated wastewater at Monitoring Location EFF-001A as described in Table 1. At a minimum, the effluent shall be monitored as specified in Table 3 below:

**Table 3. Effluent Monitoring EFF-001A**

| Constituent/Parameter                                      | Units          | Sample Type       | Frequency  |
|--|----------------|-------------------|------------|
| Flow   | mgd            | Meter             | Continuous |
| Biochemical Oxygen Demand (BOD) 5-day @ 20 degrees Celsius | mg/L           | 24-hour Composite | 1/Week     |
| BOD  | % Removal      | Calculate         | 1/Week     |
| pH   | standard units | Grab              | 1/Week     |
| Total Suspended Solids (TSS)                               | mg/L           | 24-hour Composite | 1/Week     |
| TSS  | % Removal      | Calculate         | 1/Week     |
| Total Coliform Organisms                                   | MPN/100 mL     | Grab              | 3/Week     |

1. **Table 3 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table 3:
  - a. **24-hour composite samples** shall be a 24-hour flow proportional composite.
  - b. Total Coliform Organisms. Samples for total coliform organisms may be collected at any point following disinfection.
  - c. pH shall be analyzed within 15 minutes of sample collection.
  - d. Total coliform organism samples shall be collected on different days.

**C. EFFLUENT MONITORING EFF-001B**

The Discharger shall monitor disinfected tertiary-treated wastewater at Monitoring Location EFF-001B as described in Table 1. At a minimum, the effluent shall be monitored as specified in Table 4 below:

**Table 4. Effluent Monitoring EFF-001B**

| Constituent/Parameter                                 | Units          | Sample Type   | Frequency     |
|---|----------------|---------------|---------------|
| pH  | standard units | Grab          | 5/Week        |
| Ammonia Nitrogen, Total (as N)                        | mg/L           | Grab          | 1/Week        |
| Chlorine, Total Residual                              | mg/L           | Grab          | 1/Day         |
| Electrical Conductivity @ 25 degrees Celsius          | µmhos/cm       | Grab          | 1/Week        |
| Hardness, Total (as CaCO3)                            | mg/L           | Grab          | 1/Quarter     |
| Temperature   | Degrees C      | Grab          | 1/Week        |
| Priority Pollutants and Other Constituents of Concern | Varies         | See Section O | See Section O |
| Whole Effluent Toxicity                               | See Section J  | See Section J | See Section J |

1. **Table 4 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table 4:
  - a. pH, temperature, and total residual chlorine shall be analyzed within 15 minutes of sample collection.
  - b. **Temperature** and **pH** shall be recorded at the time of **ammonia** sample collection.
  - c. **Whole Effluent Toxicity.** Ammonia samples shall be collected concurrently with whole effluent toxicity monitoring.
  - d. **Total Residual Chlorine** must be monitored using an analytical method that is sufficiently sensitive to measure at the permitted level of 0.01 mg/L.
  - e. **Hardness** samples shall be collected concurrently with metals samples.
  - f. **Priority Pollutants.** For all priority pollutants and other constituents of concern, the reporting level shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (**See Section O, Table 11**).
  - g. If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

**D. EFFLUENT MONITORING EFF-002A**

The Discharger shall monitor disinfected tertiary recycled water at Monitoring Location EFF-002A as described in Table 1. At a minimum, the effluent shall be monitored as specified in Table 5 below:

**Table 5. Effluent Monitoring EFF-002A**

| Constituent/Parameter                                      | Units      | Sample Type       | Frequency  |
|--|------------|-------------------|------------|
| Flow   | mgd        | Meter             | Continuous |
| Biochemical Oxygen Demand (BOD) 5-day @ 20 degrees Celsius | mg/L       | 24-hour Composite | 1/Week     |
| BOD  | % Removal  | Calculate         | 1/Week     |
| Chlorine Contact Time                                      | Mg-min/L   | Calculate         | 1/Day      |
| Total Suspended Solids (TSS)                               | mg/L       | 24-hour Composite | 1/Week     |
| TSS  | % Removal  | Calculate         | 1/Week     |
| Total Coliform Organisms                                   | MPN/100 mL | Grab              | 1/Day      |

1. **Table 5 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table 5:
  - a. **24-hour composite samples** shall be 24-hour flow proportional composite.
  - b. **Total Coliform Organisms.** Samples for total coliform organisms may be collected at any point following disinfection.

**E. EFFLUENT MONITORING EFF-002B**

The Discharger shall monitor disinfected tertiary recycled water at Monitoring Location EFF-002B as described in Table 1. At a minimum, the effluent shall be monitored as specified in Table 6 below:

**Table 6. Effluent Monitoring EFF-002B**

| Constituent/Parameter                        | Units    | Sample Type | Frequency |
|--|----------|-------------|-----------|
| Electrical Conductivity @ 25 degrees Celsius | µmhos/cm | Grab        | 1/Week    |
| Nitrate Nitrogen, Total (as N)               | mg/L     | Grab        | 2/Month   |
| Nitrite Nitrogen, Total (as N)               | mg/L     | Grab        | 2/Month   |
| Total Dissolved Solids                       | mg/L     | Grab        | 1/Quarter |
| Total Kjeldahl Nitrogen                      | mg/L     | Grab        | 2/Month   |
| Total Nitrogen                               | mg/L     | Calculated  | 2/Month   |

**F. POND MONITORING PND-001**

The Discharger shall monitor the storage pond (i.e., PND-001) when water is present. Water quality samples shall be collected opposite the pond inlet at a depth of one foot. Freeboard shall be measured to the nearest 0.1 foot vertically from the surface of the water to the lowest elevation of the berm. At a minimum, the pond shall be monitored as specified in Table 7 below:

**Table 7. Pond Monitoring**

| Constituent/Parameter | Units               | Sample Type | Frequency                     |
|-----------------------|---------------------|-------------|-------------------------------|
| Dissolved Oxygen      | mg/L                | Grab        | 1/Week<br>(see 1 and 2 below) |
| Freeboard             | Nearest<br>0.1 Feet | Grab        | 1/Week                        |

1. Samples for DO shall be collected between 8:00 am and 10:00 am when there is more than one foot of water in the pond. If there is insufficient water in the pond no sample shall be collected, and the Discharger shall report that in the appropriate monitoring report.
2. If offensive odors are detected by or brought to the attention of the Discharger, the Discharger shall monitor the potential source pond at least daily for DO until the odor issue has been resolved and the DO in the pond is greater than 1.0 mg/L.

In addition, the Discharger shall inspect the condition of the ponds on a **monthly** basis when wastewater is present in the ponds and record their observations. Notations shall include color of the water in the pond (e.g., dark green, brown, gray, etc.); presence of odors or nuisance conditions; and whether grease, dead algae, scum, or debris are accumulating in the pond. Also on a **monthly** basis, the Discharger shall inspect the condition of the pond liner and document any signs that the integrity of the pond liner is compromised. A summary of all pond observations shall be included in the subsequent monitoring report.

If there is evidence that the integrity of the pond is compromised, the Discharger shall provide a work plan (**within three months** of observing the evidence) proposing a schedule to repair the liner.

**G. FILTRATION SYSTEM MONITORING REQUIREMENTS (FIL-001 AND FIL-002)**

When discharging to surface water or producing Title 22 disinfected tertiary recycled water for reclamation/reuse, the Discharger shall monitor the filtration system at Monitoring Location FIL-001 and FIL-002 in accordance with the table below:

**Table 8. Filtration System Monitoring Requirements**

| Parameter | Units | Sample Type | Monitoring Location    | Minimum Sampling Frequency |
|-----------|-------|-------------|------------------------|----------------------------|
| Turbidity | (NTU) | Meter       | FIL-001 and<br>FIL-002 | Continuous                 |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

1. **Continuous analyzers.** The Discharger shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation. If analyzer(s) fail to provide continuous monitoring for more than two hours and influent and/or effluent from the disinfection process is not diverted for retreatment, the Discharger shall obtain and report hourly manual and/or grab sample results.
2. **Turbidity at FIL-001.** Report daily average and maximum turbidity. If turbidity exceeds 5 NTU at Monitoring Location FIL-001 for more than 15 minutes when not coagulating, the Discharger shall add chemicals or divert the wastewater. If turbidity exceeds 10 NTU at Monitoring Location FIL-001 when not coagulating and the wastewater is not diverted, the Discharger shall collect a sample as soon as practicable for total coliform at Monitoring Location EFF-001A (if discharging to Sycamore Creek) or Monitoring Location EFF-002A (if discharging to the recycled water Use Area) and report the duration of the turbidity exceedance.
3. **Turbidity at FIL-002.** Report daily average and maximum turbidity. If turbidity exceeds 10 NTU at Monitoring Location FIL-002 when coagulation is used or 2 NTU when coagulation is not used, and the wastewater is not diverted, the Discharger shall collect a sample as soon as practicable for total coliform at Monitoring Location EFF-001A (if discharging to Sycamore Creek) or Monitoring Location EFF-002A (if discharging to the recycled water Use Area) and report the duration of the turbidity exceedance.

**H. PUBLIC WATER SUPPLY (SPL-001)**

The Discharger shall monitor the public water supply at SPL-001 and analyze for the constituents specified below. Sampling stations shall be established where representative samples of the public water supply can be obtained. If the supply is from more than one source, the sample shall be a flow-weighted average (include calculation in self-monitoring reports) of all sources. At a minimum, the public water supply shall be monitored as specified in Table 9 below. In addition, the Discharger shall submit a copy of the City’s most recent Consumer Confidence Report for each 4<sup>th</sup> quarter monitoring report.

**Table 9. Municipal Water Supply Monitoring Requirements**

| Parameter                            | Units    | Sample Type | Minimum Sampling |
|--------------------------------------|----------|-------------|------------------|
| Electrical Conductivity @ 25 Celsius | µmhos/cm | Grab        | 1/Year           |
| Standard Minerals                    | mg/L     | Grab        | 1/Year           |

1. Standard minerals shall include, at a minimum, the following elements/compounds: aluminum, calcium, chloride, iron, magnesium, manganese, phosphorous, potassium, sodium, sulfate, total alkalinity (including alkalinity series), hardness, and include verification that the analysis is complete (i.e., cation/anion balance).



## I. SLUDGE/BIOSOLIDS MONITORING

A composite sample of dewatered sludge/biosolids shall be collected at Monitoring Location BIO-001 when sludge/biosolids is removed from the Facility for disposal in accordance with USEPA's *POTW Sludge Sampling and Analysis Guidance Document* (August 1989) and tested for the metals listed in Title 22. Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling, application, and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the Fourth Quarter Annual Monitoring Report.

## J. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

1. **Chronic Toxicity Testing.** The effluent samples shall be taken at the effluent Monitoring Location EFF-001B. The Discharger shall meet the following chronic toxicity testing requirements:
  - a. **Instream Waste Concentration (IWC) for Chronic Toxicity.** The chronic toxicity IWC is 100 percent effluent.
  - b. **Routine Monitoring Frequency.** The Discharger shall perform routine chronic toxicity testing once per calendar year in years in which there are at least 15 days of discharge to Discharge Point 001, concurrent with effluent ammonia sampling.
  - c. **Calendar Month.** The calendar month is defined as the period of time beginning on the day of the initiation of the routine monitoring 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).
  - d. **Chronic Toxicity MMET Testing.** If a routine chronic toxicity monitoring test results in a "fail" at the IWC, then a maximum of two chronic toxicity MMET tests shall be completed. The chronic toxicity MMET tests shall be initiated within the same calendar month that the routine chronic toxicity monitoring test was initiated that resulted in the "fail" at the IWC. If the first chronic toxicity MMET test results in a "fail" at the IWC, then the second chronic toxicity MMET test is unnecessary and is waived.
  - e. **Additional Routine Monitoring Tests for TRE Determination.** In order to determine if a TRE is necessary an additional routine monitoring test is required when one chronic toxicity MDET or MMET is not met, but not two in a single calendar month. The calendar month in which the MMET or MDET was not met and the calendar month of the additional routine monitoring shall be considered "successive calendar months" for purposes of determining whether a TRE is required. This additional routine monitoring test could result in the need to conduct MMET tests per Section J.1.d above.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

- f. **Sample Volumes.** Adequate sample volumes shall be collected to provide renewal water to complete the test in the event that the discharge is intermittent.
- g. **Test Species.** Discharger shall conduct routine chronic toxicity tests with:
  - i. The cladoceran, water flea, *Ceriodaphnia dubia* (survival and reproduction test);
  - ii. The fathead minnow, *Pimephales promelas* (larval survival and growth test); and
  - iii. The green alga, *Pseudokirchneriella subcapitata* (growth test).

MMET tests or additional routine monitoring tests for TRE determination shall be conducted using the species that resulted in a “fail” at the IWC. In the event that routine monitoring results in a “fail” at the IWC for more than one species, MMET tests or additional routine monitoring tests for TRE determination shall be conducted using the species that exhibits the highest percent effect.

- h. **Test Methods.** Discharger shall conduct the chronic toxicity tests on effluent samples at the instream waste concentration for the discharge in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (EPA/821/R02/013, 2002; Table IA, 40 C.F.R. part 136).
- i. **Dilution and Control Water.** 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.
- j. **Test Failure.** If the effluent chronic toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method in EPA/821-R-02-013, the Discharger must conduct a Replacement Test as soon as possible, as specified in subsection 1.k, below.
- k. **Replacement Test.** When a required toxicity test for routine monitoring or MMET 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 MMET 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 MMET tests, as applicable, and any MMET tests required to be conducted due to the results of the new toxicity test shall be used to determine if the MMET and the MDET are met for the calendar month in which the toxicity test that was not completed was required to be initiated. The new toxicity test and any MMET 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.

Any specific monitoring event is not required to be initiated in the required time period when the Central Valley Water Board staff determines that the test was not initiated in the required time period due to circumstances outside of the Discharger's control that were not preventable with the reasonable exercise of care, and the Discharger promptly initiates, and ultimately completes, a replacement test.

2. **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 below.
  - a. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1 (Chronic Freshwater and East Coast Methods) and Appendix B, Table B-1.
  - b. The null hypothesis (Ho) for the TST statistical approach is:  
  
Mean discharge IWC response  $\leq$  RMD x Mean control response, where the chronic RMD = 0.75.  
  
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."
  - c. The relative "Percent Effect" at the discharge IWC is defined and reported as:  
  
Percent Effect = ((Mean control response – Mean discharge IWC response) / (Mean control response)) x 100.  
  
This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations, i.e., a control and IWC. The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control, the test result is "Pass" or "Fail"). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.
3. **WET Testing Notification Requirements.** The Discharger shall notify the Central Valley Water Board of test results exceeding the chronic toxicity monitoring target as soon as the Discharger learns of the exceedance, but no later than 24-hours after receipt of the monitoring results.
4. **WET Testing Reporting Requirements.** The Discharger shall submit the full laboratory report for all toxicity testing as an attachment to CIWQS for the reporting period (e.g., monthly, quarterly, semi-annually or annually) and provide the data (i.e.,

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

Pass/Fail) in the PET tool for uploading into CIWQS. The laboratory report shall include:

- a. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the IWC for the discharge, the dates of sample collection and initiation of each toxicity test, all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE investigations.
- b. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.
- c. Statistical program (e.g., TST calculator, CETIS, etc.) output results, including graphical plots, for each toxicity test.

**K. RECEIVING WATER MONITORING REQUIREMENTS**

**1. Monitoring Location RSW-001 and RSW-002.** The Discharger shall monitor Sycamore Creek at upstream Monitoring Location RSW-001 and at downstream Monitoring Location RSW-002 as follows while discharging to Sycamore Creek and when there is measurable flow at Monitoring Location RSW-001 in accordance with Table 10 and the testing requirements described below:

**Table 10. Receiving Water Monitoring Requirements**

| Parameter   | Units          | Sample Type   | Minimum Sampling Frequency |
|---|----------------|---------------|----------------------------|
| pH  | Standard Units | Grab          | 1/Week                     |
| Ammonia Nitrogen, Total (as N)                        | mg/L           | Grab          | 1/Month                    |
| Ammonia, Un-ionized (as N)                            | mg/L           | Calculated    | 1/Month                    |
| Dissolved Oxygen                                      | mg/L           | Grab          | 1/Month                    |
| Electrical Conductivity @ 25 degrees C                | µmhos/cm       | Grab          | 1/Month                    |
| Hardness, Total (as CaCO <sub>3</sub> )               | mg/L           | Grab          | 1/Quarter                  |
| Temperature   | Degrees C      | Grab          | 1/Week                     |
| Turbidity   | NTU            | Grab          | 1/Week                     |
| Priority Pollutants and Other Constituents of Concern | See Section O  | See Section O | See Section O              |

- a. **Table 10 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table 10:
  - i. **pH and temperature** shall be analyzed within 15 minutes of sample collection.
  - ii. **Temperature and pH** shall be recorded at the time of **ammonia** sample collection.
  - iii. **Hardness** samples shall be collected concurrently with metals sampling.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

- iv. **Priority Pollutants.** For all priority pollutants and other constituents of concern, the reporting level shall be consistent with sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (See Table 11).
  - v. **Priority Pollutants.** Sampling for priority pollutants must be concurrent with sampling for priority pollutants at EFF-001B.
- b. In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002 when discharging to Sycamore Creek. Attention shall be given to the presence of:
- i. Floating or suspended matter;
  - ii. Discoloration;
  - iii. Bottom deposits;
  - iv. Aquatic life;
  - v. Visible films, sheens, or coatings;
  - vi. Fungi, slimes, or objectionable growths;
  - vii. Potential nuisance conditions; and
  - viii. Flow upstream of Discharge Point 001.

Notes on receiving water conditions shall be summarized in the monitoring report.

**L. MONITORING FOR EFFLUENT AND RECEIVING WATER CHARACTERIZATION**

- 1. **Effluent Sampling Frequency.** Samples shall be collected from the effluent (Monitoring Location EFF-001B) **once every five years**, beginning the 4<sup>th</sup> quarter of 2024.
- 2. **Receiving Water Sampling Frequency.** Samples shall be collected from the upstream receiving water (Monitoring Location RSW-001) **once every five years**, beginning the 4<sup>th</sup> quarter of 2024.

**M. ANALYTICAL METHODS**

Constituents shall be collected and analyzed consistent with the Discharger's Analytical Methods Report (Section B.1) using sufficiently sensitive analytical methods and Reporting Levels (RLs) per the SSM Rule specified in 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). The "Reporting Level" is synonymous with the "Method Minimum Level" described in the SSM Rule. The results of the monitoring shall be submitted to the Central Valley Water Board with the quarterly self-monitoring reports. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.

**N. ANALYTICAL METHODS REPORT CERTIFICATION.**

Prior to beginning the Effluent and Receiving Water Characterization monitoring, the Discharger shall provide a certification acknowledging the scheduled start date of the Effluent and Receiving Water Characterization monitoring and confirming that samples will be collected and analyzed as described in the previously submitted Analytical Methods Report. If there are changes to the previously submitted Analytical Methods Report, the Discharger shall outline those changes. A one-page certification form will be provided by Central Valley Water Board staff with the permit’s Notice of Adoption that the Discharger can use to satisfy this requirement. The certification form shall be submitted electronically via CIWQS submittal **three months prior to the start of Characterization Monitoring.**

**O. EFFLUENT AND RECEIVING WATER CHARACTERIZATION**

1. The Discharger shall conduct effluent and receiving water characterization monitoring in accordance with Table 11 and the testing requirements described in section O.2 below.

**Table 11. Effluent and Receiving Water Characterization Monitoring**  
**VOLATILE ORGANICS**

| CTR Number | Volatile Organic Parameters    | CAS Number | Units | Effluent Sample Type |
|------------|--------------------------------|------------|-------|----------------------|
| 25         | 2-Chloroethyl vinyl Ether      | 110-75-8   | µg/L  | Grab                 |
| 17         | Acrolein                       | 107-02-8   | µg/L  | Grab                 |
| 18         | Acrylonitrile                  | 107-13-1   | µg/L  | Grab                 |
| 19         | Benzene                        | 71-43-2    | µg/L  | Grab                 |
| 20         | Bromoform                      | 75-25-2    | µg/L  | Grab                 |
| 21         | Carbon Tetrachloride           | 56-23-5    | µg/L  | Grab                 |
| 22         | Chlorobenzene                  | 108-90-7   | µg/L  | Grab                 |
| 24         | Chloroethane                   | 75-00-3    | µg/L  | Grab                 |
| 26         | Chloroform                     | 67-66-3    | µg/L  | Grab                 |
| 35         | Methyl Chloride                | 74-87-3    | µg/L  | Grab                 |
| 23         | Dibromochloromethane           | 124-48-1   | µg/L  | Grab                 |
| 27         | Dichlorobromomethane           | 75-27-4    | µg/L  | Grab                 |
| 36         | Methylene Chloride             | 75-09-2    | µg/L  | Grab                 |
| 33         | Ethylbenzene                   | 100-41-4   | µg/L  | Grab                 |
| 89         | Hexachlorobutadiene            | 87-68-3    | µg/L  | Grab                 |
| 34         | Methyl Bromide (Bromomethane)  | 74-83-9    | µg/L  | Grab                 |
| 94         | Naphthalene                    | 91-20-3    | µg/L  | Grab                 |
| 38         | Tetrachloroethylene (PCE)      | 127-18-4   | µg/L  | Grab                 |
| 39         | Toluene                        | 108-88-3   | µg/L  | Grab                 |
| 40         | trans-1,2-Dichloroethylene     | 156-60-5   | µg/L  | Grab                 |
| 43         | Trichloroethylene (TCE)        | 79-01-6    | µg/L  | Grab                 |
| 44         | Vinyl Chloride                 | 75-01-4    | µg/L  | Grab                 |
| 21         | Methyl-tert-butyl ether (MTBE) | 1634-04-4  | µg/L  | Grab                 |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Volatile Organic Parameters | CAS Number | Units | Effluent Sample Type |
|------------|-----------------------------|------------|-------|----------------------|
| 41         | 1,1,1-Trichloroethane       | 71-55-6    | µg/L  | Grab                 |
| 42         | 1,1,2-Trichloroethane       | 79-00-5    | µg/L  | Grab                 |
| 28         | 1,1-Dichloroethane          | 75-34-3    | µg/L  | Grab                 |
| 30         | 1,1-Dichloroethylene (DCE)  | 75-35-4    | µg/L  | Grab                 |
| 31         | 1,2-Dichloropropane         | 78-87-5    | µg/L  | Grab                 |
| 32         | 1,3-Dichloropropylene       | 542-75-6   | µg/L  | Grab                 |
| 37         | 1,1,2,2-Tetrachloroethane   | 79-34-5    | µg/L  | Grab                 |
| 101        | 1,2,4-Trichlorobenzene      | 120-82-1   | µg/L  | Grab                 |
| 29         | 1,2-Dichloroethane          | 107-06-2   | µg/L  | Grab                 |
| 75         | 1,2-Dichlorobenzene         | 95-50-1    | µg/L  | Grab                 |
| 76         | 1,3-Dichlorobenzene         | 541-73-1   | µg/L  | Grab                 |
| 77         | 1,4-Dichlorobenzene         | 106-46-7   | µg/L  | Grab                 |

**SEMI-VOLATILE ORGANICS**

| CTR Number | Semi-Organic Volatile Parameters | CAS Number | Units | Effluent Sample Type |
|------------|----------------------------------|------------|-------|----------------------|
| 60         | Benzo(a)Anthracene               | 56-55-3    | µg/L  | Grab                 |
| 85         | 1,2-Diphenylhydrazine            | 122-66-7   | µg/L  | Grab                 |
| 45         | 2-Chlorophenol                   | 95-57-8    | µg/L  | Grab                 |
| 46         | 2,4-Dichlorophenol               | 120-83-2   | µg/L  | Grab                 |
| 47         | 2,4-Dimethylphenol               | 105-67-9   | µg/L  | Grab                 |
| 49         | 2,4-Dinitrophenol                | 51-28-5    | µg/L  | Grab                 |
| 82         | 2,4-Dinitrotoluene               | 121-14-2   | µg/L  | Grab                 |
| 55         | 2,4,6-Trichlorophenol            | 88-06-2    | µg/L  | Grab                 |
| 83         | 2,6-Dinitrotoluene               | 606-20-2   | µg/L  | Grab                 |
| 50         | 2-Nitrophenol                    | 88-75-5    | µg/L  | Grab                 |
| 71         | 2-Chloronaphthalene              | 91-58-7    | µg/L  | Grab                 |
| 78         | 3,3-Dichlorobenzidine            | 91-94-1    | µg/L  | Grab                 |
| 62         | Benzo(b)Fluoranthene             | 205-99-2   | µg/L  | Grab                 |
| 52         | 4-Chloro-3-methylphenol          | 59-50-7    | µg/L  | Grab                 |
| 48         | 2-Methyl-4,6-Dinitrophenol       | 534-52-1   | µg/L  | Grab                 |
| 51         | 4-Nitrophenol                    | 100-02-7   | µg/L  | Grab                 |
| 69         | 4-Bromophenyl Phenyl Ether       | 101-55-3   | µg/L  | Grab                 |
| 72         | 4-Chlorophenyl Phenyl Ether      | 7005-72-3  | µg/L  | Grab                 |
| 56         | Acenaphthene                     | 83-32-9    | µg/L  | Grab                 |
| 57         | Acenaphthylene                   | 208-96-8   | µg/L  | Grab                 |
| 58         | Anthracene                       | 120-12-7   | µg/L  | Grab                 |
| 59         | Benzidine                        | 92-87-5    | µg/L  | Grab                 |
| 61         | Benzo(a)Pyrene                   | 50-32-8    | µg/L  | Grab                 |
| 63         | Benzo(ghi)Perylene               | 191-24-2   | µg/L  | Grab                 |
| 64         | Benzo(k)Fluoranthene             | 207-08-9   | µg/L  | Grab                 |
| 65         | Bis (2-Chloroethoxy) Methane     | 111-91-1   | µg/L  | Grab                 |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Semi-Organic Volatile Parameters | CAS Number | Units | Effluent Sample Type |
|------------|----------------------------------|------------|-------|----------------------|
| 66         | Bis (2-Chloroethyl) Ether        | 111-44-4   | µg/L  | Grab                 |
| 67         | Bis (2-Chloroisopropyl) Ether    | 108-60-1   | µg/L  | Grab                 |
| 68         | Bis(2-Ethylhexyl) Phthalate      | 117-81-7   | µg/L  | Grab                 |
| 70         | Butylbenzyl Phthalate            | 85-68-7    | µg/L  | Grab                 |
| 73         | Chrysene                         | 218-01-9   | µg/L  | Grab                 |
| 81         | Di-n-butyl Phthalate             | 84-74-2    | µg/L  | Grab                 |
| 84         | Di-n-Octyl Phthalate             | 117-84-0   | µg/L  | Grab                 |
| 74         | Dibenzo(a,h)anthracene           | 53-70-3    | µg/L  | Grab                 |
| 79         | Diethyl Phthalate                | 84-66-2    | µg/L  | Grab                 |
| 80         | Dimethyl Phthalate               | 131-11-3   | µg/L  | Grab                 |
| 86         | Fluoranthene                     | 206-44-0   | µg/L  | Grab                 |
| 87         | Fluorene                         | 86-73-7    | µg/L  | Grab                 |
| 88         | Hexachlorobenzene                | 118-74-1   | µg/L  | Grab                 |
| 90         | Hexachlorocyclopentadiene        | 77-47-4    | µg/L  | Grab                 |
| 91         | Hexachloroethane                 | 67-72-1    | µg/L  | Grab                 |
| 92         | Indeno(1,2,3-cd) Pyrene          | 193-39-5   | µg/L  | Grab                 |
| 93         | Isophorone                       | 78-59-1    | µg/L  | Grab                 |
| 98         | N-Nitrosodiphenylamine           | 86-30-6    | µg/L  | Grab                 |
| 96         | N-Nitrosodimethylamine           | 62-75-9    | µg/L  | Grab                 |
| 97         | N-Nitrosodi-n-Propylamine        | 621-64-7   | µg/L  | Grab                 |
| 95         | Nitrobenzene                     | 98-95-3    | µg/L  | Grab                 |
| 53         | Pentachlorophenol (PCP)          | 87-86-5    | µg/L  | Grab                 |
| 99         | Phenanthrene                     | 85-01-8    | µg/L  | Grab                 |
| 54         | Phenol                           | 108-95-2   | µg/L  | Grab                 |
| 100        | Pyrene                           | 129-00-0   | µg/L  | Grab                 |

**INORGANICS**

| CTR Number | Inorganic Parameters | CAS Number | Units | Effluent Sample Type |
|------------|----------------------|------------|-------|----------------------|
| NL         | Aluminum, Total      | 7429-90-5  | µg/L  | 24-hour Composite    |
| 1          | Antimony, Total      | 7440-36-0  | µg/L  | 24-hour Composite    |
| 2          | Arsenic, Total       | 7440-38-2  | µg/L  | 24-hour Composite    |
| 15         | Asbestos             | 1332-21-4  | µg/L  | 24-hour Composite    |
| 3          | Beryllium, Total     | 7440-41-7  | µg/L  | 24-hour Composite    |
| 4          | Cadmium, Total       | 7440-43-9  | µg/L  | 24-hour Composite    |



MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Inorganic Parameters | CAS Number | Units | Effluent Sample Type |
|------------|----------------------|------------|-------|----------------------|
| 5a (III)   | Chromium, Total      | 7440-47-3  | µg/L  | 24-hour Composite    |
| 6          | Copper, Total        | 7440-50-8  | µg/L  | 24-hour Composite    |
| 14         | Iron, Total          | 7439-89-6  | µg/L  | 24-hour Composite    |
| 7          | Lead, Total          | 7439-92-1  | µg/L  | 24-hour Composite    |
| 8          | Mercury, Total       | 7439-97-6  | µg/L  | Grab                 |
| NL         | Mercury, Methyl      | 22967-92-6 | µg/L  | Grab                 |
| NL         | Manganese, Total     | 7439-96-5  | µg/L  | 24-hour Composite    |
| 9          | Nickel, Total        | 7440-02-0  | µg/L  | 24-hour Composite    |
| 10         | Selenium, Total      | 7782-49-2  | µg/L  | 24-hour Composite    |
| 11         | Silver, Total        | 7440-22-4  | µg/L  | 24-hour Composite    |
| 12         | Thallium, Total      | 7440-28-0  | µg/L  | 24-hour Composite    |
| 13         | Zinc, Total          | 7440-66-6  | µg/L  | 24-hour Composite    |

**NON-METALS/MINERALS**

| CTR Number | Non-Metal/Mineral Parameters | CAS Number | Units | Effluent Sample Type |
|------------|------------------------------|------------|-------|----------------------|
| NL         | Boron                        | 7440-42-8  | µg/L  | 24-hour Composite    |
| NL         | Chloride                     | 16887-00-6 | mg/L  | 24-hour Composite    |
| 14         | Cyanide, Total (as CN)       | 57-12-5    | µg/L  | Grab                 |
| NL         | Sulfate                      | 14808-79-8 | mg/L  | 24-hour Composite    |
| NL         | Sulfide (as S)               | 5651-88-7  | mg/L  | 24-hour Composite    |

**PESTICIDES/PCBs/DIOXINS**

| CTR Number | Pesticide/PCB/Dioxin Parameters | CAS Number | Units | Effluent Sample Type |
|------------|---------------------------------|------------|-------|----------------------|
| 110        | 4,4-DDD                         | 72-54-8    | µg/L  | 24-hour Composite    |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Pesticide/PCB/Dioxin Parameters             | CAS Number | Units | Effluent Sample Type |
|------------|---|------------|-------|----------------------|
| 109        | 4,4-DDE                                     | 72-55-9    | µg/L  | 24-hour Composite    |
| 108        | 4,4-DDT                                     | 50-29-3    | µg/L  | 24-hour Composite    |
| 112        | alpha-Endosulfan                            | 959-98-8   | µg/L  | 24-hour Composite    |
| 103        | alpha-BHC (Benzene hexachloride)            | 319-84-6   | µg/L  | 24-hour Composite    |
| 102        | Aldrin                                      | 309-00-2   | µg/L  | 24-hour Composite    |
| 113        | beta-Endosulfan                             | 33213-65-9 | µg/L  | 24-hour Composite    |
| 104        | beta-BHC (Benzene hexachloride)             | 319-85-7   | µg/L  | 24-hour Composite    |
| 107        | Chlordane                                   | 57-74-9    | µg/L  | 24-hour Composite    |
| 106        | delta-BHC (Benzene hexachloride)            | 319-86-8   | µg/L  | 24-hour Composite    |
| 111        | Dieldrin                                    | 60-57-1    | µg/L  | 24-hour Composite    |
| 114        | Endosulfan Sulfate                          | 1031-07-8  | µg/L  | 24-hour Composite    |
| 115        | Endrin                                      | 72-20-8    | µg/L  | 24-hour Composite    |
| 116        | Endrin Aldehyde                             | 7421-93-4  | µg/L  | 24-hour Composite    |
| 117        | Heptachlor                                  | 76-44-8    | µg/L  | 24-hour Composite    |
| 118        | Heptachlor Epoxide                          | 1024-57-3  | µg/L  | 24-hour Composite    |
| 105        | gamma-BHC (Benzene hexachloride or Lindane) | 58-89-9    | µg/L  | 24-hour Composite    |
| 119        | Polychlorinated Biphenyl (PCB) 1016         | 12674-11-2 | µg/L  | 24-hour Composite    |
| 120        | PCB 1221                                    | 11104-28-2 | µg/L  | 24-hour Composite    |
| 121        | PCB 1232                                    | 11141-16-5 | µg/L  | 24-hour Composite    |
| 122        | PCB 1242                                    | 53469-21-9 | µg/L  | 24-hour Composite    |
| 123        | PCB 1248                                    | 12672-29-6 | µg/L  | 24-hour Composite    |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Pesticide/PCB/Dioxin Parameters | CAS Number | Units | Effluent Sample Type |
|------------|---------------------------------|------------|-------|----------------------|
| 124        | PCB 1254                        | 11097-69-1 | µg/L  | 24-hour Composite    |
| 125        | PCB 1260                        | 11096-82-5 | µg/L  | 24-hour Composite    |
| 126        | Toxaphene                       | 8001-35-2  | µg/L  | 24-hour Composite    |
| 16         | 2,3,7,8-TCDD (Dioxin)           | 1746-01-6  | mg/L  | 24-hour Composite    |

**CONVENTIONAL PARAMETERS**

| CTR Number | Conventional Parameters | CAS Number | Units     | Effluent Sample Type |
|------------|-------------------------|------------|-----------|----------------------|
| NL         | pH                      | --         | SU        | Grab                 |
| NL         | Temperature             | --         | Degrees C | Grab                 |

**NON-CONVENTIONAL PARAMETERS**

| CTR Number | Nonconventional Parameters                           | CAS Number | Units    | Effluent Sample Type |
|------------|--|------------|----------|----------------------|
| NL         | Foaming Agents (MBAS)                                | MBAS       | mg/L     | 24-hour Composite    |
| NL         | Hardness (as CaCO <sub>3</sub> )                     | 471-34-1   | mg/L     | Grab                 |
| NL         | Specific Conductance (Electrical Conductivity or EC) | EC         | µmhos/cm | 24-hour Composite    |
| NL         | Total Dissolved Solids (TDS)                         | TDS        | mg/L     | 24-hour Composite    |
| NL         | Dissolved Organic Carbon (DOC)                       | DOC        | mg/L     | 24-hour Composite    |

**NUTRIENTS**

| CTR Number | Nutrient Parameters      | CAS Number | Units | Effluent Sample Type |
|------------|--------------------------|------------|-------|----------------------|
| NL         | Ammonia (as N)           | 7664-41-7  | mg/L  | 24-hour Composite    |
| NL         | Nitrate (as N)           | 14797-55-8 | mg/L  | 24-hour Composite    |
| NL         | Nitrite (as N)           | 14797-65-0 | mg/L  | 24-hour Composite    |
| NL         | Phosphorus, Total (as P) | 7723-14-0  | mg/L  | 24-hour Composite    |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

**OTHER CONSTITUENTS OF CONCERN**

| <b>CTR Number</b> | <b>Other Constituents of Concern</b>  | <b>CAS Number</b> | <b>Units</b> | <b>Effluent Sample Type</b> |
|-------------------|---------------------------------------|-------------------|--------------|-----------------------------|
| NL                | 1,2,3-Trichloropropane (TCP)          | 96-18-4           | µg/L         | Grab                        |
| NL                | Trichlorofluoromethane                | 75-69-4           | µg/L         | Grab                        |
| NL                | 1,1,2-Trichloro-1,2,2-Trifluoroethane | 76-13-1           | µg/L         | Grab                        |
| NL                | Styrene                               | 100-42-5          | µg/L         | Grab                        |
| NL                | Xylenes                               | 1330-20-7         | µg/L         | Grab                        |
| NL                | Barium                                | 7440-39-3         | µg/L         | 24-hour Composite           |
| NL                | Fluoride                              | 16984-48-8        | mg/L         | 24-hour Composite           |
| NL                | Molybdenum                            | 7439-98-7         | µg/L         | 24-hour Composite           |
| NL                | Tributyltin                           | 688-73-3          | µg/L         | 24-hour Composite           |
| NL                | Alachlor                              | 15972-60-8        | µg/L         | 24-hour Composite           |
| NL                | Atrazine                              | 1912-24-9         | µg/L         | 24-hour Composite           |
| NL                | Bentazon                              | 25057-89-0        | µg/L         | 24-hour Composite           |
| NL                | Carbofuran                            | 1563-66-2         | µg/L         | 24-hour Composite           |
| NL                | 2,4-D                                 | 94-75-7           | µg/L         | 24-hour Composite           |
| NL                | Dalapon                               | 75-99-0           | µg/L         | 24-hour Composite           |
| NL                | 1,2-Dibromo-3-chloropropane (DBCP)    | 96-12-8           | µg/L         | 24-hour Composite           |
| NL                | Di(2-ethylhexyl)adipate               | 103-23-1          | µg/L         | 24-hour Composite           |
| NL                | Dinoseb                               | 88-85-7           | µg/L         | 24-hour Composite           |
| NL                | Diquat                                | 85-00-7           | µg/L         | 24-hour Composite           |
| NL                | Endothal                              | 145-73-3          | µg/L         | 24-hour Composite           |
| NL                | Ethylene Dibromide (EDB)              | 106-93-4          | µg/L         | 24-hour Composite           |
| NL                | Methoxychlor                          | 72-43-5           | µg/L         | 24-hour Composite           |
| NL                | Molinate (Ordram)                     | 2212-67-1         | µg/L         | 24-hour Composite           |

MONITORING AND REPORTING PROGRAM R5-2024-0005  
 BEAR VALLEY COMMUNITY SERVICES DISTRICT  
 WASTEWATER TREATMENT FACILITY  
 KERN COUNTY

| CTR Number | Other Constituents of Concern | CAS Number | Units | Effluent Sample Type |
|------------|-------------------------------|------------|-------|----------------------|
| NL         | Oxamyl                        | 23135-22-0 | µg/L  | 24-hour Composite    |
| NL         | Picloram                      | 1918-02-1  | µg/L  | 24-hour Composite    |
| NL         | Simazine (Princep)            | 122-34-9   | µg/L  | 24-hour Composite    |
| NL         | Thiobencarb                   | 28249-77-6 | µg/L  | 24-hour Composite    |
| NL         | 2,4,5-TP (Silvex)             | 93-72-1    | µg/L  | 24-hour Composite    |
| NL         | Chlorpyrifos                  | 2921-88-2  | µg/L  | 24-hour Composite    |
| NL         | Diazinon                      | 333-41-5   | µg/L  | 24-hour Composite    |

2. **Table 11 Testing Requirements.** The Discharger shall comply with the following testing requirements when monitoring for the parameters described in Table 11:
- a. **Aluminum.** Aluminum can be tested by using either total or acid-soluble (inductively coupled plasma/atomic emission spectrometry or inductively coupled plasma/mass spectrometry) analysis methods, as supported by U.S. EPA’s Ambient Water Quality Criteria for Aluminum document (EPA 440/5-86-008), or other methods that exclude aluminum silicate particles as approved by the Executive Officer for comparison with the 2018 U.S. EPA NAWQC for protection of freshwater aquatic life criterion aquatic life criteria.
  - b. **Grab Samples.** A grab sample is defined as an individual discrete sample collected over a period of time not exceeding 15 minutes. It can be taken manually, using a pump, scoop, vacuum, or other suitable device.
  - c. **24-hour Composite Samples.** All 24-hour composite samples shall be collected from a 24-hour flow proportional composite.
  - d. **Redundant Sampling.** The Discharger is not required to conduct effluent monitoring for constituents that have already been sampled in a given month, as required in Tables 3 through 6.
  - e. **Concurrent Sampling.** Effluent and receiving water sampling shall be performed at approximately the same time, on the same date.
  - f. **Sample Type.** All receiving water samples shall be taken as grab samples. Effluent samples shall be taken as described in Table 11.
  - g. **Bis (2-ethylhexyl) phthalate.** In order to verify if bis (2-ethylhexyl) phthalate is truly present, the Discharger shall take steps to assure that sample containers, sampling apparatus, and analytical equipment are not sources of the detected contaminant.

- h. **Total Mercury and Methyl Mercury.** Unfiltered methyl mercury and total mercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels, for collection of equipment blanks (section 9.4.4.2). The analysis of methyl mercury and total mercury shall be by U.S. EPA method 1630 and 1631 (Revision E), respectively, with a reporting limit of 0.05 ng/L for methyl mercury and 0.5 ng/L for total mercury.

### III. REPORTING REQUIREMENTS

#### A. SELF-MONITORING REPORTS (SMRs)

1. The Discharger 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/](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.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP. The Discharger 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 Discharger 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. Quarterly SMRs are required even if there is no discharge. If no discharge occurs during the quarter, the monitoring report must be submitted stating that there has been no discharge.
3. The Discharger 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 Discharger 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 Discharger shall electronically submit the data in a tabular format as an attachment.
4. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
5. The Discharger shall attach all final laboratory reports from all contracted commercial laboratories, including quality assurance/quality control information, with all its SMRs for which sample analyses were performed.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

6. Monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.
7. All monitoring reports that involve planning, investigation, evaluation or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.
8. **Quarterly Monitoring Reports.** Quarterly Monitoring Reports shall be prepared and submitted to the Central Valley Water Board via CIWQS by the **1st day of the second month after the quarter** (i.e., the 1<sup>st</sup> Quarter [January - March] quarterly report is due 1<sup>st</sup> May). Each Quarterly Monitoring Report shall include the following:
  - a. Results of **Influent Monitoring** as specified in Section II.A, including:
  - b. Results of **Effluent Monitoring** as specified in Section II.B, II.C, II.D, and II.E.
  - c. Results of **Pond Monitoring** as specified in Section II.F.
  - d. Results of **Filtration System Monitoring** as specified in Section II.G.
  - e. Results of the **Receiving Water Monitoring** as specified in Section II.K.
  - f. Data presented in a tabular format.
  - g. A comparison of monitoring data to the flow limitations, effluent limitations, and discharge specifications and an explanation of any violations of those requirements.
  - h. Copies of the laboratory analytical report(s).
  - i. A copy of calibration log page(s) verifying calibration of all hand-held monitoring instruments performed during the quarter.
9. **Fourth Quarter Monitoring Reports.** In addition to the above information, the fourth quarter monitoring report, due **1<sup>st</sup> February of each year** shall include the following:
  - a. Names, title, and contact information for persons to contact regarding the Facility for emergency and routine situations.
  - b. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

- c. An evaluation of the Facility's annual average effluent EC to the Salinity Action Level of 1,300  $\mu\text{mhos/cm}$  at Monitoring Location EFF-001B and 1,420  $\mu\text{mhos/cm}$  at Monitoring Location EFF-002B. If the facility's discharge exceeds the Salinity Action Level, the Discharger shall submit a Salinity Action Level Report by 1 March of the year following the exceedance of the Salinity Action Level as described in the WDRs Order.
- d. Statement certifying when the flow meters and other monitoring instruments and devices were last calibrated, include identification of who performed the calibrations (SPRRs C.4).
- e. Results of Municipal Water Supply as specified in Section II.H. If the source water supply is from more than one source, the Discharger shall calculate the flow-weighted average concentration for each constituent monitored (include supporting calculations).
- f. The results of an annual evaluation conducted pursuant to Standard Provisions E.4 and a figure depicting monthly average discharge flow for the previous five calendar years.
- g. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.
- h. Copy of the Public Water System's most recent Consumer Confidence Report.
- i. A statement whether the current operation and maintenance manual, sampling plan, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last reviewed for adequacy.
- j. A discussion of compliance with the WDRs Order and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the WDRs.
- k. An evaluation of the Facility's performance, including discussion of capacity issues, infiltration and inflow rates, nuisance conditions, and forecast of flows anticipated in the following year (SPRRs E.4).
- l. Annual production of total sludge/biosolids in dry tons or cubic yards (if applicable).
- m. A description of the sludge/biosolids disposal methods, including the following information related to the disposal methods used. If more than one method is used, including the percentage disposed of by each method.



MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

- i. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
- ii. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
- iii. For incineration, include: the name and locations of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving as (if applicable).
- iv. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

## B. OTHER REPORTS

1. **Analytical Methods Report.** The Discharger shall complete and submit an Analytical Methods Report, electronically via CIWQS submittal. The Analytical Methods Report shall include the following for each constituent to be monitored in accordance with this Order: 1) applicable water quality objective, 2) reporting level (RL), 3) method detection limit (MDL), and 4) analytical method. The analytical methods shall be sufficiently sensitive with RLs consistent with the SSM Rule per 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv), and with the Minimum Levels (MLs) in the SIP, Appendix 4. The “Reporting Level or RL” is synonymous with the “Method Minimum Level” described in the SSM Rule. If an RL is not less than or equal to the applicable water quality objective for a constituent, the Discharger shall explain how the proposed analytical method complies with the SSM Rule as outlined below. Central Valley Water Board staff will provide a tool with the permit’s Notice of Adoption to assist the Discharger in completing this requirement. The tool will include the constituents and associated applicable water quality objectives to be included in the Analytical Methods Report. The analytical Methods Report must be submitted **by 16 May 2024**.
  - a. Laboratory analytical methods shall be sufficiently sensitive in accordance with the Sufficiently Sensitive Methods Rule (SSM Rule) specified under 40 C.F.R. 122.21(e)(3) and 122.44(i)(1)(iv). A U.S. EPA-approved analytical method is sufficiently sensitive for a pollutant/parameter where:
    - i. The method minimum level (ML) is at or below the applicable water quality objective for the receiving water, or;
    - ii. The method ML is above the applicable water quality objective for the receiving water but the amount of the pollutant/parameter in the discharge is high enough that the method detects and quantifies the level of the pollutant/parameter, or;
    - iii. The method ML is above the applicable water quality objective for the receiving water, but the ML is the lowest of the 40 C.F.R. 136 U.S. EPA-approved analytical methods for the pollutant/parameter.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

2. **Compliance Time Schedule.** For the compliance time schedule included in the Order, the Discharger shall submit to the Central Valley Water Board, on or before each compliance due date, the specified document or a written report detailing compliance or noncompliance with the specific date and task. If noncompliance is reported, the Discharger shall state the reasons for noncompliance and include an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the compliance time schedule.
  
3. **Volumetric Reporting.** Per [State Water Resources Control Board's Water Quality Control Policy](https://www.waterboards.ca.gov/water_issues/programs/recycled_water/) ([https://www.waterboards.ca.gov/water\\_issues/programs/recycled\\_water/](https://www.waterboards.ca.gov/water_issues/programs/recycled_water/)) amended in December 2018, dischargers of treated wastewater and recycled water are required to report annually monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type. The Discharger shall submit an annual report to the State Water Board **by April 30 of each calendar year** furnished with the information detailed below. The Discharger must submit this annual report containing monthly data in electronic format via the State Water Board's Internet Geotracker system (<https://geotracker.waterboards.ca.gov/>). Required data shall be submitted to the [Geotracker database](#) under a site-specific global identification number. Any data will be made publicly accessible as machine readable datasets. The Discharger must report all applicable items listed below:
  - a. **Influent.** Monthly volume of influent wastewater collected and treated by the wastewater treatment facility.
  
  - b. **Production.** Monthly volume of wastewater treated, specifying level of treatment.
  
  - c. **Discharge.** Monthly volume of treated wastewater discharged to one of the following, specifying level of treatment:
    - i. Inland surface waters, specifying volume required to maintain minimum instream flow.
  
    - ii. Enclosed bays, estuaries and coastal lagoons, and ocean waters.
  
    - iii. Natural systems, such as wetlands, wildlife habitats, and duck clubs, where augmentation or restoration has occurred, and that are not part of a wastewater treatment plant or water recycling treatment plant.
  
    - iv. Land, where beneficial uses are not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture or fields with harvested crops.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

All other documents or reports not required to be submitted via CIWQS shall be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents/reports that are less than 50MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents/reports that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board  
Region 5 – Fresno Office  
1685 “E” Street  
Fresno, California 93706

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15  
Facility: Bear Valley Community Services District  
Order: MRP R5-2024-0005  
County: Kern  
Place ID: 273161

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$1,000 per violation, per day, depending on the violation, pursuant to Water Code section 13268. The Central Valley Water Board reserves the right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this MRP, 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 Resources Control Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](#) may be found on the internet ([http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)) or will be provided on request.

The Discharger shall implement the above monitoring program starting **1 March 2024**.

MONITORING AND REPORTING PROGRAM R5-2024-0005  
BEAR VALLEY COMMUNITY SERVICES DISTRICT  
WASTEWATER TREATMENT FACILITY  
KERN COUNTY

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of the Monitoring and Reporting Program R5-2024-0005 issued by the California Regional Water Quality Control Board, Central Valley Region, on 16 February 2024.

---

PATRICK PULUPA, Executive Officer

## VI. GLOSSARY

|                   |   |
|-------------------|---|
| BOD <sub>5</sub>  | Five-day biochemical oxygen demand  |
| CaCO <sub>3</sub> | Calcium carbonate   |
| DO                | Dissolved oxygen  |
| EC                | Electrical conductivity at 25° C  |
| FDS               | Fixed dissolved solids  |
| TDS               | Total dissolved solids  |
| TKN               | Total Kjeldahl nitrogen   |
| TSS               | Total suspended solids  |
| Continuous        | The specified parameter shall be measured by a meter continuously.  |
| 24-hr Composite   | Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.   |
| Daily             | Once per day.   |
| 1/Week            | Once per week.  |
| 2/Week            | Twice per week on non-consecutive days.   |
| 1/Month           | Once per month.   |
| 2/Month           | Twice per month in non-consecutive weeks.   |
| 1/Quarter         | Once per quarter.   |
| 2/Year            | Samples shall be collected twice per year in non-consecutive weeks in the middle and at the end of the processing season (unless specified otherwise).  |
| 1/Year            | Once per year.  |
| mg/L              | Milligrams per liter  |
| mg/kg             | Milligrams per kilogram   |
| mL/L              | Milliliters [of solids] per liter   |
| µg/L              | Micrograms per liter  |
| µmhos/cm          | Micromhos per centimeter  |
| gpd               | Gallons per day   |
| mgd               | Million gallons per day   |
| MPN/100 mL        | Most probable number [of organisms] per 100 milliliters   |
| General Minerals  | Analysis shall include; alkalinity (as CaCO <sub>3</sub> ), bicarbonate (as CaCO <sub>3</sub> ), boron, calcium, carbonate (as CaCO <sub>3</sub> ), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, and verification that the analysis is complete (i.e., cation/anion balance). |