CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM 94-100 REV2
FOR
CITY OF RIVERBANK
RIVERBANK WASTEWATER TREATMENT PLANT
STANISLAUS COUNTY

This Monitoring and Reporting Program Order (MRP) for the City of Riverbank (Discharger) is issued pursuant to Water Code section 13267. The Discharger owns and operates the Riverbank Wastewater Treatment Plant (Facility). This MRP establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements (WDRs) Order 94-100. 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 a revised MRP.

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

I. GENERAL MONITORING REQUIREMENTS

A. FLOW MONITORING

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. The Central Valley Water Board Executive Officer shall approve any proposed changes to flow monitoring locations prior to implementation of the change. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. 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; or at least once per year. 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. Any proposed changes to sampling locations shall be approved by Central Valley Water Board staff, in writing, prior to implementation of the change. The Discharger shall monitor the locations shown in the table below to demonstrate compliance with the requirements of this MRP.

Table 1 – Monitoring Location Designations

Monitoring Location	Monitoring Location Description
INF-001	Location where a representative sample of the waste stream entering the Facility can be collected prior to any treatment processes.
EFF-001	Location where a representative sample of the effluent can be collected downstream of the aeration ponds and representative of wastewater entering the percolation ponds.
Ponds T-1, T-2, T-3, T-4, P-2, P-3, P-4, P-5, P-6, P-7, P-8, P-9	Samples shall be collected at a depth of one foot below water surface level opposite the inlet, for each pond in use
MW-XX	Monitoring wells MW-1 though MW-13

C. SAMPLING AND SAMPLE ANALYSIS

All samples and measurements 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 supply water, wastewater, soil, solids/sludges, and groundwater. 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, electrical conductivity, 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 at the manufacturer's recommended frequency; and

4. Field Calibration reports are submitted as described in the "Reporting Requirements" section of the MRP.

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

1. Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater (EPA);

2. Test Methods for Evaluating Solid Waste (EPA);

3. Methods for Chemical Analysis of Water and Wastes (EPA);

4. Methods for Determination of Inorganic Substances in Environmental Samples (EPA);

5. Standard Methods for the Examination of Water and Wastewater (APHA/AWWA/WEF); and

6. Soil, Plant, and Water Reference Methods for the Western Region (WREP 125).

Approved editions shall be those that are approved for use by the U.S. Environmental Protection Agency (EPA) or the State Water Resources Control Board's (State Water Board) Environmental 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 concentrations that implement applicable water quality objectives/limits for the constituents to be analyzed.

II. SPECIFIC MONITORING REQUIREMENTS

A. INFLUENT MONITORING

The Discharger shall monitor the municipal influent at the headworks. Influent samples shall be collected at approximately the same time as effluent samples. The Discharger shall monitor select constituents at the influent (INF-001) when industrial dischargers are discharging to the system (see table note 1). Influent monitoring shall include, at a minimum, the following:

Table 2 – Influent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	mgd	Meter	Continuous	Quarterly
BOD_5	mg/L	Grab	Weekly	Quarterly
Total Suspended Solids	mg/L	Grab	Weekly	Quarterly
Electrical Conductivity	µmhos/cm	Grab	Weekly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly
Dissolved Arsenic	µg/L	Grab	Once per event	Quarterly
Dissolved Chromium	µg/L	Grab	Once per event	Quarterly
Dissolved Copper	µg/L	Grab	Once per event	Quarterly
Total Copper	µg/L	Grab	Once per event	Quarterly
Total Phosphorus	mg/L	Grab	Once per event	Quarterly
Chromium VI	µg/L	Grab	Once per event	Quarterly
Zinc	µg/L	Grab	Once per event	Quarterly

Table Note 1. Monitoring for Dissolved Arsenic, Dissolved Chromium, Dissolved Copper, Total Copper, Total Phosphorus, Chromium VI and Zinc shall take place when industrial dischargers with waste containing these constituents, as documented through the City's industrial discharge permitting process or subsequent discharge monitoring, discharge to the collection system. Event sampling shall be conducted at the influent on the day that the discharge takes place. If there is no discharge during the reporting period, the report shall state so.

B. EFFLUENT MONITORING

At a minimum, the Discharger shall monitor the municipal wastewater at the point of discharge from the aeration cell in use on the date of sampling. Effluent samples shall include, at a minimum, the following:

Table 3 - Effluent Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Electrical Conductivity	µmhos/cm	Grab	Weekly	Quarterly
BOD_5	mg/L	Grab	Weekly	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Monthly	Quarterly
Volatile Dissolved Solids	mg/L	Grab	Monthly	Quarterly
Ammonia (as Nitrogen)	mg/L	Grab	Monthly	Quarterly
Nitrate (as Nitrogen)	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

C. POND MONITORING

The Discharger shall monitor all treatment and percolation ponds in accordance with the following. Sampling will be conducted from permanent monitoring locations that will provide samples representative of the wastewater in the effluent equalization and storage ponds. Freeboard shall be measured vertically from the water surface to the lowest elevation of pond berm (or spillway/overflow pipe invert) and shall be measured to the nearest 0.10 feet. If any pond is dry, the monitoring report shall so state. Pond monitoring shall include, at a minimum, as specified below:

Table 4 - Pond Monitoring

Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Flow	Gallons	Calculated	Weekly	Quarterly
Freeboard	feet	Measurement	Weekly	Quarterly
Dissolved Oxygen	mg/L	Grab	Weekly	Quarterly
pH	pH units	Grab	Weekly	Quarterly

Table Note 1. For each pond, report beginning and ending dates of discharge, freeboard at the beginning and ending of discharge, and total volume discharged into the pond prior to switching discharge into the next pond (as applicable).

Table Note 2. Samples shall be collected at a depth of one foot from each pond in use, opposite the inlet. Samples shall be collected between 0700 and 1000 hours.

D. GROUNDWATER MONITORING

The Discharger shall maintain the groundwater monitoring well network. If a groundwater monitoring well is dry or has insufficient water for sampling for more than four consecutive sampling events or is damaged, the Discharger shall submit to the Central Valley Water Board a workplan and proposed time schedule for its replacement, and the well shall be replaced following approval of the workplan. Alternatively, the Discharger has the option to submit a report with supporting evidence that a replacement well is not needed.

Prior to construction of any additional groundwater monitoring wells, the Discharger shall submit plans and specifications to the Central Valley Water Board for review and approval. Once installed, all new monitoring wells shall be appropriately incorporated into monitoring conducted under this MRP.

The groundwater monitoring program applies to groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5R, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12 and MW-13, and any additional monitoring wells subsequently installed under approval of the Central Valley Water Board.

Prior to sampling, depth to groundwater measurements shall be collected to the nearest 0.01 feet. Groundwater elevations shall then be calculated to determine groundwater gradient and horizontal flow direction. Monitoring wells to be sampled shall be purged of at least three well volumes until temperature, pH and electrical conductivity have stabilized. Low or no-purge sampling methods are acceptable, if described in an approved Sampling and Analysis Plan. Samples shall be collected and analyzed using standard USEPA methods. Except as noted above, groundwater monitoring shall include, at a minimum, the following:

Table 5 - Groundwater Monitoring Requirements

Constituent/ Parameter	Units	Sample Type	Sampling Frequency	Reporting Frequency
Groundwater elevation	feet	Calculated	Quarterly	Semi-Annually
Gradient magnitude	feet/feet	Calculated	Quarterly	Semi-Annually
Gradient direction	degrees	Calculated	Quarterly	Semi-Annually
pH	Standard Units	Grab	Quarterly	Semi-Annually
Electrical Conductivity	µmhos/cm	Grab	Quarterly	Semi-Annually
Ammonia (as N)	mg/L	Grab	Quarterly	Semi-Annually
Nitrate (as N)	mg/L	Grab	Quarterly	Semi-Annually
Total Nitrogen	mg/L	Grab	Quarterly	Semi-Annually
Total coliform organisms	MPN/100 mL	Grab	Quarterly	Semi-Annually
Volatile Dissolved Solids	mg/L	Grab	Quarterly	Semi-Annually
Total Dissolved Solids	mg/L	Grab	Quarterly	Semi-Annually
Dissolved Iron	mg/L	Grab	Quarterly	Semi-Annually
Magnesium	mg/L	Grab	Quarterly	Semi-Annually
Dissolved Manganese	mg/L	Grab	Quarterly	Semi-Annually
Calcium	mg/L	Grab	Quarterly	Semi-Annually
Potassium	mg/L	Grab	Quarterly	Semi-Annually
Chloride	mg/L	Grab	Quarterly	Semi-Annually
Sodium	mg/L	Grab	Quarterly	Semi-Annually
Sulfate	mg/L	Grab	Quarterly	Semi-Annually
Zinc	µg/L	Grab	Quarterly	Semi-Annually
Total Hardness (as CaCO3)	mg/L	Grab	Semi-Annually	Semi-Annually
Total Alkalinity (as CaCO3)	mg/L	Grab	Semi-Annually	Semi-Annually
Bicarbonate (as CaCO3)	mg/L	Grab	Semi-Annually	Semi-Annually
Carbonate (as CaCO3)	mg/L	Grab	Semi-Annually	Semi-Annually
Hydroxide (as CaCO3)	mg/L	Grab	Semi-Annually	Semi-Annually
Dissolved Arsenic	µg/L	Grab	Semi-Annually	Semi-Annually
Dissolved Chromium	µg/L	Grab	Semi-Annually	Semi-Annually
Dissolved Copper	µg/L	Grab	Semi-Annually	Semi-Annually
Total Copper	µg/L	Grab	Semi-Annually	Semi-Annually
Total Phosphorus	mg/L	Grab	Semi-Annually	Semi-Annually
Chromium VI	µg/L	Grab	Semi-Annually	Semi-Annually

Table Note 1. Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least four consecutive groundwater monitoring events, the Discharger may request this MRP be revised to reduce monitoring frequency, constituent analyses, or monitoring parameters. The proposal must include adequate technical justification for a reduction in monitoring frequency, including demonstration of compliance with the Groundwater Limitations of WDRs Order 94-100, Section D.

III. REPORTING REQUIREMENTS

The Discharger must submit all monitoring reports and analytical monitoring results to the State Water Resources Control Board's (State Water Board's) GeoTracker database. GeoTracker is an Internet-accessible database system used by the State Water Board, regional boards, and local agencies to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks. This system consists of a relational database, online compliance reporting features, a geographical information system (GIS) interface, and other features that are utilized by regulatory agencies, regulated industries, and the public to input, manage, or access compliance and regulatory tracking data.

GeoTracker Electronic Reporting Requirements: All monitoring reports and monitoring results shall be submitted to GeoTracker in accordance with the timeframes specified below and in searchable Portable Document Format (PDF). The Discharger shall follow the applicable Electronic Submittal of Information (ESI) requirements under the Facility-specific **Global Identification Number WDR100035552** at the GeoTracker database.

(https://geotracker.waterboards.ca.gov/esi/login.asp)

In order to submit reports electronically, the Discharger shall create a secure GeoTracker Electronic Submittal of Information (ESI) account and log in credentials, claim their facility by requesting access in GeoTracker, and finally uploading PDF copies of the required reports via the ESI portal as outlined in the GeoTracker ESI Beginner's Guide for Responsible Parties (Beginner's Guide) linked below. The Discharger may complete the above tasks by accessing the 'Getting Started' section on the GeoTracker ESI webpage.

(https://www.waterboards.ca.gov/ust/electronic_submittal/index.html)

Additional GeoTracker support information can be found at the following:

a. 'Guides/Resources' document link in the "Tools" on the Discharger's GeoTracker ESI account.

b. Resources on the GeoTracker ESI website, such as the Beginner's Guide (https://www.waterboards.ca.gov/ust/electronic_submittal/docs/geotracker_esi_rp_beginner s_guide_revisedoct2019.pdf)

c. General GeoTracker Help Desk contact information:

Phone: 1-866-480-1028 Email: geotracker@waterboards.ca.gov

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported to the Central Valley Water Board.

Laboratory analysis reports shall be included in the monitoring reports. In addition, all laboratory reports must be retained by the Discharger for a minimum of three years in accordance with Section C.3 of the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, 1 March 1991 ed. (SPRRs). For a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

In addition to the requirements of Section C.3 of the SPRRs, 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.

As required by the Business and Professions Code sections 6735, 7835, and 7835.1, 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 under the direct supervision of a Registered Professional Engineer or Professional Geologist and signed by the registered professional.

A. MONITORING REPORT DUE DATES

Table 6 - Monitoring Report Due Dates

Monitoring Report	Monitoring Period	Report Due Date
First Quarter Monitoring Report	1 January to 31 March	**1 May**
Second Quarter Monitoring Report	1 April to 30 June	**1 August**
Third Quarter Monitoring Report	1 July to September 30	**1 November**
Fourth Quarter Monitoring Report	1 October to 31 December	**1 February**
First Semi-Annual Monitoring Report	1 January to 30 June	**1 August**
Second Semi-Annual Monitoring Report	1 July to 31 December	**1 February**
Industrial Discharge Report	N/A	Within 120 days of MRP issuance
State Water Board Volumetric Annual Reporting	1 January to 31 December	**30 April**

A. QUARTERLY SELF MONITORING REPORTS

The Quarterly Self Monitoring Report shall contain the following:

1. Daily, weekly, and monthly monitoring data for the for the influent, effluent, and pond monitoring shall be reported in the quarterly self monitoring reports.

2. If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

B. SEMI-ANNUAL SELF MONITORING REPORTS

The Semi-Annual Self Monitoring Report shall include the following:

1. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDRs, this MRP, and the SPRRs. The narrative shall be supported by field logs for

each well documenting depth to groundwater; parameters measured before, during and after purging; method of purging; calculation of casing volume; and total volume of water purged;

2. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends, if any;

3. Summary data tables of historical and current groundwater elevations and analytical results that clearly indicate exceedances of the water quality objectives;

4. A scaled map showing relevant structures and features of the Facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level; and

5. Copies of laboratory analytical reports(s) for groundwater monitoring.

C. ANNUAL SELF MONITORING REPORTS

In addition to the above, the Discharger shall submit the following additional information as part of the Second Semi-Annual Self Monitoring Report (due by 1 February each year):

1. Tabular and graphical summaries of all monitoring data obtained during the previous year (including influent, effluent, pond and groundwater).

2. An evaluation of the groundwater quality beneath the wastewater treatment and determination of compliance with the groundwater limitations of the WDRs based on statistical analysis for each constituent monitored for each compliance well. The evaluation should include intra well trend analysis and include all calculations and data input/analysis tables derived from use of statistical software, as applicable.

3. An evaluation of the Discharger's industrial discharge pre-treatment program, including a data summary of monitoring data obtained from the Industrial Dischargers, and any influent monitoring conducted in response to industrial discharge if applicable.

4. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge in full compliance with the waste discharge requirements.

5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

6. Monitoring equipment maintenance and calibration records, as described in Section C.4 of the SPRRs, shall be maintained by the Discharger and provided upon request by the Central Valley Water Board. Calibration records shall verify calibration of all handheld monitoring instruments and devices used to comply with the prescribed monitoring program.

D. INDUSTRIAL DISCHARGE REPORTING

Within 120 days of the date of this Order, the Discharger shall submit a report to the Central Valley Water Board describing the Discharger's Industrial Wastewater Discharge Program. The report shall include names and type of industrial dischargers that the Facility accepts industrial waste from, a characterization of industrial waste from these sources, and the Discharger's current process and procedures for accepting and managing industrial wastewater.

E. STATE WATER BOARD VOLUMETRIC ANNUAL REPORTING

Per the State Water Board's *Water Quality Control Policy for Recycled Water* (https://www.waterboards.ca.gov/water_issues/programs/water_recycling_policy/),amended in December 2018, dischargers of treated wastewater and recycled water in excess of 20,000 gallons per day are required to report annually their monthly volumes of influent, wastewater produced, and effluent, including treatment level and discharge type.

By April 30 of each calendar year, the Discharger shall submit an annual report to the State Water Board providing 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 (http://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:

1. **Influent.** Monthly volume of wastewater collected and treated by the wastewater treatment plant.

2. **Production.** Monthly volume of wastewater treated, specifying level of treatment.

3. **Discharge.** Monthly volume of treated wastewater discharged to land, where beneficial use is not taking place, including evaporation or percolation ponds, overland flow, or spray irrigation disposal, excluding pasture of fields with harvested grounds.

4. **Reuse.** Monthly volume of recycled water distributed.

5. **Reuse Categories.** Annual volume of treated wastewater distributed for beneficial use in compliance with California Code of Regulations, title 22, in each of the use categories listed below:
   a. Agricultural irrigation: pasture or crop irrigation.

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

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

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

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

   f. Geothermal energy production: augmentation of geothermal fields.

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

   h. Groundwater recharge: the planned use of recycled water for replenishment of a groundwater basin or an aquifer that has been designated as a source of water supply for a public water system. Includes surface or subsurface application, except for seawater intrusion barrier use.

   i. Reservoir water augmentation: the planned placement of recycled water into a raw surface water reservoir used as a source of domestic drinking water supply for a public water system, as defined in section 116275 of the Health and Safety Code, or into a constructed system conveying water to such a reservoir (Water Code § 13561).

   j. Raw water augmentation: the planned placement of recycled water into a system of pipelines or aqueducts that deliver raw water to a drinking water treatment plant that provides water to a public water system as defined in section 116275 of the Health and Safety Code (Water Code§ 13561).

k. Other potable uses: both indirect and direct potable reuse other than for groundwater recharge, seawater intrusion barrier, reservoir water augmentation, or raw water augmentation.

The Discharger shall begin implementing the above monitoring program beginning the first Quarter of 2026.

This Order is issued under authority delegated to the Executive Officer by the Central Valley Water Board pursuant to Resolution R5-2018-0057 and is effective upon signature.

ORDERED BY:

Digitally signed by John J. Baum
Date: 2026.01.16 17:19:57 -08'00'

for PATRICK PULUPA, Executive Officer

MRP Glossary

MRP Attachment
Attachment A – Site Map

GLOSSARY

BOD_5	Five-day biochemical oxygen demand at 20°C
EC	Electrical conductivity at 25° C
EPA	Environmental Protection Agency
ELAP	State Water Resources Control Board's Environmental Laboratory Accreditation Program
FDS	Fixed dissolved solids
MRP	Monitoring and Reporting Program
MW	Monitoring Well
N	Nitrogen
TKN	Total kjeldahl nitrogen
TDS	Total dissolved solids
Daily	Every day except weekends or holidays
Weekly	Once per week
Monthly	Once per calendar month
Quarterly	Once per calendar quarter
Semiannually	Once every six calendar months (i.e., two times per year) during non-consecutive quarters
Annually	Once per year
gpd	Gallons per day
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
mg/L	Milligrams per liter
mg[d]	Million gallons [per day]

ATTACHMENT A – SITE MAP

SITE MAP	Source City of Riverbank Title 22 Engineering Report, March 2025 Prepared by KSN, Inc.