

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
[TENTATIVE] MONITORING AND REPORTING PROGRAM R5-2025-0XXX
FOR
CONSTELLATION BRANDS US OPERATIONS, INC.
MISSION BELL WINERY
MADERA COUNTY

This Monitoring and Reporting Program Order (MRP), which is separately issued pursuant to Water Code section 13267, subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharge(s) regulated under Waste Discharge Requirements (WDRs) Order R5-2025-XXXX (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.

Constellation Brands U.S. Operations, Inc. (Constellation) owns and operates the Mission Bell Winery (Facility) and the surrounding land application areas. The reuse of process wastewater from the Facility on the land application areas is subject to the WDRs Order. Constellation is referred to as Discharger herein and is responsible for compliance with this MRP. 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) 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. Flow measurements shall be based on flow meter readings unless specifically stated otherwise. 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. The Discharger shall monitor the following locations to demonstrate compliance with the requirements of this MRP:

Table 1 – Monitoring Locations

Monitoring Location	Monitoring Location Description
EFF-01	Location where a representative sample of the process wastewater can be collected from the main lift station sump, but prior to the manual diversion valve that diverts process wastewater to either lined Pond 1 or lined Pond 2.
MW-4B, MW-10B, MW-11B, MW-15B, MW-18B, MW-19, MW-20, etc.	The Facility groundwater monitoring network wells and any future groundwater monitoring wells added to the network.
PND-01, PND-02	Onsite lined effluent storage Ponds 1 and 2
WS-1	Location where a representative sample of the water softener reject/wastewater from one of the four water softeners can be collected prior blending with other wastewater and discharged into the main lift station sump.
STL-01	Location where a representative sample of stillage wastewater can be collected prior to blending with other wastewater and discharged into the main lift station sump.
SW-01, SW-02, etc.	Source water supply wells, and any future source water wells.
IRR-01, etc.	Supplemental irrigation water well and any future irrigation wells used to irrigate the land application areas.
LAA's (I-PIV, H-PIV, K-PIV, I-FLOOD, H-FLOOD)	I-PIV: Field I center pivot application area H-PIV: Field H center pivot application area K-PIV: Field K center pivot application area I-FLOOD: Field I flood application area H-FLOOD: Field H flood application area
SOIL-01, etc.	Soil Monitoring from each Field I, Field H, and Field K.
SOLIDS	Solids Monitoring

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. 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, 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 most recently 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. EFFLUENT MONITORING (EFF-01)

The Discharger shall monitor its discharge of its treated effluent (following the initial; screening of solids) at Monitoring Location EFF-01. Samples shall be representative of the volume and nature of the discharge. Time of collection of all samples shall be recorded. Effluent monitoring shall include at least the following:

Table 2 – Effluent Monitoring (EFF-01)

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
BOD ₅	mg/L	Grab	2/Month
pH	s.u.	Grab	2/Month
EC	µmhos/cm	Grab	2/Month
Nitrite (as N)	mg/L	Grab	1/Month
Nitrate (as N)	mg/L	Grab	1/Month
Ammonia (as N)	mg/L	Grab	1/Month
TKN	mg/L	Grab	1/Month
Total Nitrogen	mg/L	Grab or Calculation	1/Month
TDS	mg/L	Grab	1/Month
FDS	mg/L	Grab	1/Month
TSS	mg/L	Grab	1/Month
COD	mg/L	Grab	1/Month
Total Organic Carbon	mg/L	Grab	1/Quarter
Arsenic	µg/L	Grab	1/Year
General Minerals (see 1 below)	mg/L or µg/L	Grab	1/Year

1. See the Glossary for the definition of General Minerals.

B. WATER SOFTENER MONITORING

The Discharger shall monitor the quality of the discharge of water softener reject at Monitoring Location WS-01 prior to mixing with other wastewaters. Samples shall be representative of the volume and nature of the discharge. Time of collection of all samples shall be recorded. Effluent monitoring shall include at least the following:

Table 3 – Water Softener Wastewater Monitoring (WS-01)

Constituent/Parameter	Units	Sample Type	Frequency
Flow (see 1 below)	mgd	Metered	Continuous
pH	s.u.	Grab	2/Month
EC	µmhos/cm	Grab	2/Month
TDS	mg/L	Grab	1/Month
FDS	mg/L	Grab	1/Month

Constituent/Parameter	Units	Sample Type	Frequency
General Minerals (See 2 below)	mg/L or µg/L	Grab	1/Year

1. Flow rate may be metered or estimated based on potable water supply meter readings or other approved methods. Flow rates may be measured as influent or effluent flow. The method of measurement shall be reported in the monitoring report.
2. See the Glossary for the definition of General Minerals.

C. STILLAGE MONITORING

The Discharger shall monitor the quality of its stillage wastewater discharge at Monitoring Location STL-01 prior to mixing with other wastewaters. Samples shall be representative of the volume and nature of the discharge. Time of collection of all samples shall be recorded. Effluent monitoring shall include at least the following:

Table 4 – Stillage Monitoring (STL-01)

Constituent/Parameter	Units	Sample Type	Frequency (see 2 below)
Flow (See 1 below)	mgd	Metered	Continuous
pH	s.u.	Grab	2/Month
EC	µmhos/cm	Grab	2/Month
TDS	mg/L	Grab	1/Month
FDS	mg/L	Grab	1/Month
Nitrite (as N)	mg/L	Grab	1/Month
Nitrate (as N)	mg/L	Grab	1/Month
Ammonia (as N)	mg/L	Grab	1/Month
TKN	mg/L	Grab	1/Month
Total Nitrogen	mg/L	Grab	1/Month
General Minerals (See 3 below)	mg/L or µg/L	Grab	1/Year

1. Flow rate may be metered or estimated based on potable water supply meter readings or other approved methods. The method of measurement shall be reported in the monitoring report.
2. Monitoring shall occur when stillage is generated and discharged to the central lift station.
3. See the Glossary for the definition of General Minerals.

D. POND MONITORING (PND-01, PND-02, ETC.)

The Discharger shall monitor the lined effluent storage pond at Monitoring Location PND-01 and PND-02 when wastewater is present. Any additional wastewater ponds added shall also be monitored per this section and table below. Freeboard shall be measured to the nearest 0.1 foot vertically from the surface of the water to the lowest elevation of the berm. Water quality samples shall be collected at a depth of one foot below the surface of the water opposite the inlet. The Discharger shall operate and maintain leachate collection and removal system (LCRS) sumps under each effluent storage pond in accordance with the Operations and Maintenance Plan required by the WDRs Order. At a minimum, the pond shall be monitored as specified in Table 4:

Table 4 – Effluent Storage Pond Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
DO	mg/L	Grab	2/Month
pH	Std. units	Grab	2/Month
EC	µmhos/cm	Grab	2/Month
Freeboard	Nearest 0.1 Foot	Observation	1/Week
Odors	---	Observation	1/Week (see 2 below)
Solids Depth (see 3 below)	Nearest 0.1 Feet	Observation	1/Year in October
Liner Condition (see 4 below)	---	Observation	1/Year
Leachate Flow (see 5 below)	Gallons	Calculate	1/Month
Leachate Rate (See 6 below)	Gallons Per Minute	Calculate	1/Year (or as specified in an approved O&M Plan)

1. Samples for DO and pH shall be collected between 8:00 am and 10:00 a.m. 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 (excluding weekends and holidays) for DO, pH, and odors until the odor issue has been resolved.
3. Thickness of settled solids at the bottom of the pond(s)
4. The Discharger shall conduct the pond monitoring detailed in the Storage Pond's Operation and Maintenance Plan required per the WDRs Order (Provision I.5).

5. The Discharger shall inspect the LCRS sump(s) monthly for presence of leachate. The total flow in each sump shall be recorded.
6. The Discharger shall assess the leachate collection system at each of the effluent storage ponds and determine an action leakage rate (ALR) that when exceeded triggers the Discharger to take necessary action to identify and repair liner breaches. The Discharger shall notify Central Valley Water board staff within seven days if the rate of fluid generation in any LCRS sump exceeds the ALR.

E. SOURCE WATER MONITORING (SW-01, SW-02, ETC.)

The source water for Facility operations shall be monitored. Samples shall be representative of the source water supplied to the Facility after treatment (if any). If the source water is from more than one source, the results shall be presented as a flow-weighted average of all sources. Source water monitoring shall include at least the following:

Table 5 – Source Water Monitoring (SW-01 and SW-02)

Constituent/Parameter	Units	Sample Type	Frequency
EC	µmhos/cm	Grab	1/Year
Nitrate (as N)	mg/L	Grab	1/Year
FDS	mg/L	Grab	1/Year

F. SUPPLEMENTAL IRRIGATION WATER MONITORING (IRR-01)

The Discharger shall monitor the irrigation water used to supplement the irrigation of LAA-1 and LAA-2. Samples of the irrigation water shall be representative of the irrigation water applied to the LAA. If the irrigation water is from more than one source, samples will be provided from each source. At a minimum, the irrigation monitoring system shall be monitored as specified in Table 6 below:

Table 6 – Irrigation Water Monitoring (IRR-01)

Constituent/Parameter	Units	Sample Type	Frequency
EC	µmhos/cm	Grab	1/Year
FDS	mg/L	Grab	1/Year
Nitrate as N	mg/L	Grab	1/Year

G. GROUNDWATER MONITORING

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Purging shall continue until pH, EC, and turbidity have stabilized. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 casing volumes. Groundwater monitoring shall be conducted

semiannually or twice per year (Spring [March 1 – April 30] and Fall [September 1 – October 31]). The Discharger shall monitor the groundwater monitoring well network (monitoring wells MW-4B, MW-10B, MW-11B, MW-15B, MW-18B, MW-19, and MW-20, and any subsequent or additional monitoring wells, in or around the Facility and LAAs as follows:

Table 7 – Groundwater Monitoring

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u>
Depth to Groundwater (See 1 below)	0.01 Feet	Measured	2/Year
Groundwater Elevation	Feet	Calculated	2/Year
Groundwater Gradient	Feet/Feet	Calculated	2/Year
pH	pH Units	Grab	2/Year
EC	µmhos/cm	Grab	2/Year
TDS	mg/L	Grab	2/Year
Ammonia	mg/L	Grab	2/Year
Nitrate as N	mg/L	Grab	2/Year
TKN	mg/L	Grab	2/Year
Total Nitrogen	mg/L	Calculated	2/Year
Arsenic	µg/L	Grab	2/Year
Iron (see 2 below)	µg/L	Grab	2/Year
Manganese (See 2 below)	µg/L	Grab	2/Year
Total Organic Carbon	mg/L	Grab	2/Year
General Minerals (See 2 below)	mg/L or µg/L	Grab	1/Year

1. Groundwater elevation shall be calculated based on depth-to-water measurements from a surveyed measuring point.
2. For constituents with Secondary MCLs listed in California Code of Regulations Title 22 Table 64449-A (e.g., iron, and manganese), samples shall be filtered with a 1.5-micron filter prior to preservation, digestion, and analysis. For all other constituents, samples shall be filtered with a 0.45-micron filter prior to preservation, digestion, and analysis.

In addition, the Discharger shall maintain its groundwater monitoring well network. If a groundwater monitoring well(s) is dry for four consecutive sampling events or is damaged, the Discharger shall submit a work plan and proposed time schedule to replace the well(s). If a monitoring report reports a fourth consecutive dry sampling

event for a well or if a well is damaged, the work plan shall be submitted within 90 days of submittal of the monitoring report identifying the fourth dry sampling event. The well(s) shall be replaced following Executive Officer approval of the work plan and time schedule. Once installed, all new monitoring wells shall be added to the existing groundwater monitoring well network.

H. LAND APPLICATION AREA (I-PIV, H-PIV, ETC.)

The Discharger shall inspect the LAAs at least once daily prior to and during irrigation events. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.) shall be noted in the Winery's logbook. A summary of the notations made in the LAA log shall be provided in each quarterly report. In addition, the Discharger shall perform the following routine monitoring and loading calculations for each discrete irrigation area within the LAA each day when wastewater is applied. The data shall be collected and presented in graphical (map) and/or tabular format and shall include the following:

Table 8 - Land Application Area Monitoring (I-PIV, H-PIV, etc.)

Parameter	Units	Sample Type	Frequency
Fields Irrigated	Acres	---	Daily (see 1 below)
Wastewater Flow	Gallons	Metered	Daily (see 1 below)
Wastewater Loading	Inches/day	Calculated	Daily (see 1 below)
Supplemental Irrigation	Gallons	Metered	Daily
Supplemental Irrigation loading	Inches/day	Calculated	Daily
Precipitation	Inches/day	Rain gauge (see 2 below)	Daily
Total Hydraulic Loading (see 3 below)	Inches per acre month	Calculated	1/Month
BOD Loading (see 4 below)			
Daily Loading	lbs/acre	Calculated	Daily (see 1 below)
Cycle Average (see 5 below)	lbs/ac/day	Calculated	Cycle

Parameter	Units	Sample Type	Frequency
Nitrogen Loading (see 4 below)			
From wastewater	lbs/ac/year	Calculated	1/Year
From fertilizers (and any solids applied)	lbs/ac/year	Calculated	1/Year
From supplemental irrigation water	lbs/ac/year	Calculated	1/Year
Salt Loading (see 4 below)			
From wastewater	lbs/ac/year	Calculated	1/Year
From supplemental irrigation water	lbs/ac/year	Calculated	1/Year
Field Conditions			
Nuisance, odors, vectors	--	Observation	Weekly (see 1 below)
Discharge runoff	--	Observation	Weekly (see 1 below)

1. Daily when wastewater is being applied to the LAAs.
2. National Weather Service or CIMIS data from the nearest weather station is acceptable.
3. Combined loading from wastewater, irrigation water, and precipitation.
4. The BOD, nitrogen, and salt loading shall be calculated as specified in Section III of the MRP.
5. A cycle average is calculated by taking the pounds of BOD applied to the LAA in a given period, divided by the sum of the total day's wastewater was applied plus the number of days of rest (no application of wastewater or supplemental irrigation water). See section III of this MRP for the calculation.

I. SOIL MONITORING

The Discharger shall establish, a minimum of two representative soil profile monitoring locations within the individual land application areas identified as Fields H, I, and K and at least two representative background location(s) (i.e., that historically have not received process wastewater). The Discharger shall submit a map to the Central Valley Water Board with the identified sample locations (e.g., latitude and longitude) at least 60 days prior to the first soil sampling event, in accordance with this Order. The samples shall be collected from the ground surface (depths of 0.5 feet or 6 inches), 2-, 4-, and 6-feet below ground surface. All samples shall be analyzed for the constituents and frequencies specified in the following table:

Table 9 – Soil Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Soil pH	Standard pH Units	Grab	Annually
EC	µmhos/cm	Grab	Annually
Nitrate as N	mg/kg	Grab	Annually
TKN	mg/kg	Grab	Annually
Total N	mg/kg	Grab	Annually

J. SOLIDS MONITORING

The Discharger shall maintain detailed records for disposal and/or recycling of residual solids removed from the Facility (e.g., wastewater screenings, solids/sludge from the CST Steamboy system, etc.). The record should include information on quantity, storage, method of disposal (i.e., livestock feed, soil amendment, composting, etc.) and receipts (if applicable). A summary of the information shall be included in the Fourth Quarter Monitoring Report.

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 WDR100029807** at the [GeoTracker](https://geotracker.waterboards.ca.gov) 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_beginners_guide_revisedoct2019.pdf) (https://www.waterboards.ca.gov/ust/electronic_submittal/docs/geotracker_esi_rp_beginners_guide_revisedoct2019.pdf)
- c. General GeoTracker Help Desk contact information:

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

A transmittal letter shall accompany each monitoring report. The letter shall include a discussion of all violations of this MRP during the reporting period and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions taken and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent certifying under penalty of perjury that the report is true, accurate and complete to the best of the signer's knowledge.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, groundwater, 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 Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

Laboratory analysis reports shall be included in the monitoring reports. All laboratory reports must also be retained for a minimum of three years. For a discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

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.

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.

A. QUARTERLY MONITORING REPORTS

Quarterly monitoring reports shall be prepared and submitted to the Central Valley Water Board by the **1st day of the second month after the quarter** (i.e., the 1st Quarter [January – March] quarterly report is due 1st May). Each Quarterly Monitoring Report shall include the following:

1. Results of the **Effluent Monitoring** as specified in Section II.A, including:
 - a. Calculation of the maximum daily and monthly average flow for each month of the quarter.
 - b. Calculation of the 12-month rolling average FDS of the discharge for each monitoring event using the FDS value for that month averaged with the FDS values for the previous 11 months.
2. Results of the **Water Softener Monitoring** as specified in Section II.B.
3. Results of the **Stillage Monitoring** as specified in Section II.C
4. Results of the **Pond Monitoring** as specified in Section II.D.
5. Results of the **Groundwater Monitoring** as specified in Section II.G.
6. Results of the **Land Application Area Monitoring** as specified in Section II.H.
 - a. A summary of the LAA inspection activities conducted by the Discharger.
 - b. Calculate the cycle average BOD₅ loading rates for the LAA.

The mass of BOD₅ applied to each discrete irrigation area within the LAA on a cycle average basis shall be calculated using the following formula:

$$M = \frac{8.345(CV)}{AT}$$

Where:

- M = Mass of BOD₅ applied to each discrete LAA field in lbs/ac/day
- C = Concentration of BOD₅ in mg/L based on the average concentration for the month
- V = Total volume of wastewater applied to the LAA field(s) during the irrigation cycle, in millions of gallons
- A = Area of the LAA field in acres
- T = Irrigation cycle length in days (from the first day wastewater was applied to the last day of the drying time)

8.345 = Unit conversion factor.

7. Copies of all laboratory analytical reports.
8. A discussion of annual chemical usage at the Facility (e.g., chemical name, purpose, and quantity used).
9. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.

All quarterly reports shall include summary data tables of analytical results and observations collected or conducted during the quarter.

B. FOURTH QUARTER MONITORING REPORT

In addition to the above information, the fourth quarter monitoring report, due **1st February of each year**, shall include the following:

1. Total annual effluent flow and the average monthly flows for each month of the year expressed as millions of gallons per day.
2. Results of the **Source Water Monitoring** as specified in Section II.E. 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).
3. Results of **Supplemental Irrigation Water Monitoring** as specified in Section II.F.
4. Results of **Soils Monitoring** as specified in Section II.I.
5. **For the LAAs**, a chronological log of dates of fertilizer application, residual solids application, irrigation, precipitation, and runoff control operations. Nitrogen and salt loading calculations shall be included as follows:
 - a. The mass of total nitrogen and FDS applied to each LAA on an annual basis shall be calculated using the following formula and compared to published crop demand for the crops grown:

$$M = \sum_{i=1}^{12} \frac{(8.345(C_i V_i) + M_x)}{A}$$

Where: M = Mass of total nitrogen/FDS applied to each discrete LAA field in lbs/ac/year

C_i = Flow-weighted average concentration of total nitrogen/FDS for the month in mg/L of the blended wastewater and irrigation water

V_i = Total volume of wastewater applied to the LAA field(s) during the irrigation cycle, in millions of gallons

A = Area of the LAA field irrigated in acres

I = The number of the month (e.g., January = 1, February = 2, etc.)

M_x = Nitrogen/FDS from other sources (e.g., fertilizer and compost) in pounds

- b. Discussion of an evaluation of soil monitoring data collected over the reporting period to estimate the concentrations in the upper six feet of LAA soils of Nitrate-N, Ammonia-N and TKN in units of lbs/acre. The discussion shall propose how soil nitrogen concentrations will be considered as a nitrogen source for crops grown the following year.
6. The types of crop(s) grown, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes including potassium (as estimated by technical references or, preferable, defined by representative plant tissue analysis).
7. Calculation of the annual average TDS effluent limit for Monitoring Location EFF-01, and a comparison of the annual average concentration to the Performance-Based Effluent Limit specified in the WDRs.
8. Tabular and graphical summaries of all data collected during the year.
9. Names, titles, and contact information for persons to contact regarding the Facility for emergency and routine situations.
10. A summary of the handling and disposal of solids removed from the Facility during the calendar year as specified in Section II.F.
11. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.
12. Statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, include identification of who performed the calibrations (SPRRs C.4).
13. A discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the WDRs Order.
14. An annual update on the Facility's Salinity Evaluation and Minimization Plan (as required per Provisions J.7 and J.8).

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 \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350, and 13385. The Central Valley Water Board reserves its 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) or will be provided on request.

The Discharger shall implement the above monitoring program **starting 1 September 2025**.

I, PATRICK PULUPA, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of the Monitoring and Reporting Program R5-2025-XXXX issued by the California Regional Water Quality Control Board, Central Valley Region, on XX August 2025.

PATRICK PULUPA, Executive Officer

IV. GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
LAA	Land application area
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
1/Week	Once per week
1/Month	Once per month
2/Month	Twice per month in non-consecutive weeks
1/Quarter	Once per quarter
1/Year	Once per year
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
s.u.	Standard pH units
General Minerals	Analysis shall include; alkalinity (as CaCO ₃), bicarbonate (as CaCO ₃), boron, calcium, carbonate (as CaCO ₃), chloride, iron, magnesium, manganese, nitrate as N, phosphate, potassium, sodium, sulfate, total dissolved solids, and verification that the analysis is complete (i.e., cation/anion balance).