

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

**MONITORING AND REPORTING PROGRAM R5-2023-0028**

FOR

CENTRAL VALLEY MEAT COMPANY, INC.;  
LAWRENCE AND SHIRLEY COELHO REVOCABLE TRUST;  
TRI WEST INVESTMENTS, LLC; JOHN AND SHANDA MELLO LIVING TRUST;  
CHIP J. MELLO AND KELLY H/W; CHIP J. MELLO/JOHN AND SHANDA MELLO LIVING  
TRUST; AND DOUGLAS E. MARTIN  
HANFORD BEEF PROCESSING FACILITY  
KINGS COUNTY

This Monitoring and Reporting Program (MRP), which is separately issued pursuant to Water Code section 13267, subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements Order R5-2023-0028 (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.

Central Valley Meat Company, Inc. (hereafter Central Valley Meat) operates the Hanford Beef Processing Facility (Facility) at 10431 8 <sup>3</sup>/<sub>4</sub> Avenue in Hanford, California. The land application areas (LAAs) that are subject to the WDRs Order are owned by Tri West Investments LLC, Lawrence and Shirley Coelho Revocable Trust, John and Shanda Mello Living Trust, Chip J. Mello and Kelly H/W, Chip J. Mello/John and Shanda Mello Living Trust, and Douglas E. Martin. Central Valley Meat has a contract with Chip Mello to manage the day-to-day farming activities on the LAAs. Central Valley Meat and the owners of the LAAs are collectively referred to as Discharger[s]. The monitoring reports required in this MRP are necessary to determine compliance with the WDRs Order. 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 Order 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. The 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 Location Designations**

Monitoring Location	Monitoring Location Description
INF-001	Location where a representative sample of the wastewater can be obtained after comingling in the Central Sump but prior to discharge into the lined settling ponds.
EFF-001	Location where a representative sample of the wastewater can be obtained after all treatment (i.e., after storage in the South and North Storage Ponds) and prior to discharge to the LAAs or blending with irrigation water (or any other water).
SPD-001, SPD-002, PND-001, and PND-002	South Settling Pond A (SPD-001), North Settling Pond B (SPD-002), South Storage Pond 1 (PND-001), and North Storage Pond 2 (PND-002).
SW	Source water monitoring
IRG	Supplemental irrigation water monitoring
LAA-001 through LAA-0XX	Land Application Area (LAA) parcels, each LAA shall be identified in the self-monitoring report using the LAA-0XX naming convention with a map identifying each LAA
MW-5B, MW-12, MW-13, MW-14, MW-15, and MW-XX (also MW-2 through MW-11 if groundwater levels rise)	Existing groundwater monitoring wells and any future monitoring wells added (MW-XX) to the Facility's groundwater monitoring well network. In addition, groundwater monitoring should include available existing shallow monitoring wells (i.e., MW-2 through MW-11) if groundwater levels start to rise.
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 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 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 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 at INF-001 after comingling in the Central Sump but prior to discharge into the lined settling ponds. At a minimum, the influent shall be monitored as specified in **Table 2** below:

**Table 2 – Influent Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous

Constituent/Parameter	Units	Sample Type	Frequency
pH	pH units	Grab	1/Week
EC	µmhos/cm	Grab	1/Week
BOD <sub>5</sub>	mg/L	24-hour Composite	1/Month
TSS	mg/L	24-hour Composite	1/Month
Nitrate (as NO <sub>3</sub> -N)	mg/L	24-hour Composite	1/Month
Nitrite (as NO <sub>2</sub> -N)	mg/L	24-hour Composite	1/Month
TKN	mg/L	24-hour Composite	1/Month
Total Nitrogen	mg/L	24-hour Composite	1/Month
Total Dissolved Solids (TDS)	mg/L	24-hour Composite	1/Month
Fixed Dissolved Solids (FDS)	mg/L	24-hour Composite	1/Month
General Minerals (see 1 below)	mg/L	24-hour Composite	1/Quarter

1. List of analytes for General Minerals analysis included in the Glossary.

## B. EFFLUENT MONITORING (EFF-001)

Effluent samples shall be collected at Monitoring Location EFF-001 on leaving the North Storage Pond (PND-002) prior to discharge to the LAAs or blending with irrigation water (or any other water). At a minimum, the effluent shall be monitored as specified in **Table 3** below:

**Table 3 – Effluent Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
pH	pH units	Grab	1/Week
EC	µmhos/cm	Grab	1/Week
BOD <sub>5</sub>	mg/L	Grab	1/Month
TSS	mg/L	Grab	1/Month
Nitrate (as NO <sub>3</sub> -N)	mg/L	Grab	1/Month
Nitrite (as NO <sub>2</sub> -N)	mg/L	Grab	1/Month
Total Nitrogen	mg/L	Grab	1/Month
Ammonia	mg/L	Grab	1/Month
TKN	mg/L	Grab	1/Month
Total Dissolved Solids (TDS)	mg/L	Grab	1/Month
Fixed Dissolved Solids (FDS)	mg/L	Grab	1/Month

Constituent/Parameter	Units	Sample Type	Frequency
General Minerals (see 1 below)	mg/L	Grab	1/Quarter

1. List of analytes for General Minerals analysis included in the Glossary.

**C. POND MONITORING (SPD-001, SPD-002, PND-001, AND PND-002)**

The Discharger shall monitor Settling Ponds A and B (SPD-001 and SPD-002) and Effluent Storage Ponds 1 and 2 (PND-001 and PND-002) when wastewater is present. Freeboard shall be measured to the nearest 0.5 feet vertically from the surface of the water to the lowest elevation of the berm. Water quality samples (e.g., DO, pH, and EC) shall be collected from Storage Ponds PND-001 and PND-002 opposite the pond inlet at a depth of one foot. In addition, the Discharger shall operate and maintain the leachate collection and removal system (LCRS) sumps beneath Storage Ponds PND-001 and PND-002 in accordance with the September 2011 Operation and Maintenance Plan. At a minimum, the ponds shall be monitored as specified in **Table 4** below:

**Table 4 – Pond Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
DO	mg/L	Grab	1/Week (see 1 below)
pH	pH Units	Grab	1/Week (see 1 below)
EC	µmhos/cm	Grab	1/Week (see 1 below)
Freeboard	Nearest 0.5 Feet	Measured	1/Week (see 1 below)
Odors	--	Observation	1/Week (see 2 below)
Solids Depth (see 3 below)	Nearest 0.1 feet	Observation	1/Year
Liner Condition (see 4 below)	--	Observation	1/Year (see 3 below)
Leachate Flow (see 5 below)	gpm	Calculate	1/Month

1. Samples for DO, pH, and EC shall be collected from the ponds 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 for DO and pH until the odor issue has been resolved and the DO in the pond is greater than 1.0 mg/L. This applies to both the settling ponds and effluent storage ponds.
3. Thickness of settled solids in the bottom of the effluent storage ponds (PND-001 and PND-002) shall be inspected annually in October.

4. The Discharger shall visually inspect the condition of the liner on the effluent storage ponds (PND-001 and PND-002) at least annually for evidence of leaks or tears. In addition, the concrete lined settling ponds (SPD-001 and SPD-002) shall be inspected during cleanout for evidence of cracks, erosion, or leaks in the concrete liner. If evidence of cracks, leaks, or tears are observed a plan shall be submitted to the Central Valley Water Board to drain and repair the liner.
5. The Discharger shall inspect the LCRS system (PND-001 and PND-002), at least monthly for the presence of leachate. The total flow in each pump shall be recorded. If the total volume of leachate nears the capacity of the LCRS sump (e.g., 90%), the Discharger shall calculate the leachate rate to determine the leakage rate. If the leakage rate exceeds the Action Leakage Rate (ALR) of 3.18 gpm (Specified in Discharge Specification E.13 of the WDRs) the Discharger shall notify Central Valley Water Board staff within seven days and take the necessary action to inspect and repair the primary liner system, if applicable.

**D. SOURCE WATER MONITORING (SW)**

The source water for Facility operations shall be monitored annually in October. Samples shall be representative of the source water supplied to the Facility. If source water is from more than one well samples from all wells shall be collected. At a minimum, the source water shall be monitored as specified in **Table 5** below.

**Table 5 – Source Water Monitoring**

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

**E. IRRIGATION SYSTEM MONITORING (IRG)**

The Discharger shall monitor the irrigation water used to provide supplemental irrigation water to the various LAAs. Samples of the irrigation water shall be representative of the supplemental irrigation water applied to the LAAs. If the irrigation water is from more than one source, samples shall be collected from each source. At a minimum, the supplemental irrigation water shall be monitored as specified in Table 6.

**Table 6 - Supplemental Irrigation Water Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
EC	µmhos/cm	Grab	1/Year
FDS	mg/L	Grab	1/Year
Nitrate (as NO <sub>3</sub> -N)	mg/L	Grab	1/Year

The Discharger shall also conduct an annual inspection of the LAAs irrigation system. The inspection shall note all irrigation lines, water supplies (i.e., irrigation wells, irrigation ditches, etc.), and note all valves and connections including all pipelines (i.e., “Central

Valley Meat Pipeline”, “Home Ranch Pipeline”, and “Flying M Ranch Pipeline”) carrying wastewater to the LAAs that will be used for the application of wastewater. In addition, the Discharger shall note any location where the irrigation system will cross open irrigation canals and/or surface waters and check that there are no connections between any conveyance used to carry wastewater and any surface waters (i.e., canals, channels, etc.) or drainage courses that leave the property. The results of the inspection as well as a map documenting the various irrigation lines and fields used for transportation or storage of wastewater shall be included in the 4<sup>th</sup> Quarter Annual monitoring report.

**F. LAND APPLICATION MONITORING (LAA-001 THROUGH LAA-0XX)**

The Discharger shall perform the routine monitoring and loading calculations for each discrete irrigation area within the LAAs. The data shall be collected and presented in tabular and/or graphical format and shall include the following:

**Table 7 – Land Application Area Monitoring**

Parameter	Units	Sample Type	Frequency
LAA APN and Field Number	---	---	Daily
Acreage Applied	Acres	---	Daily
Wastewater Flow	mgd	Meter	Daily
Hydraulic Wastewater Application Loading	inches/acre/day	Calculated	Daily
Supplemental Irrigation Flow	mgd	Meter	Daily
Hydraulic Supplemental Irrigation Application Loading	inches/acre/day	Calculated	Daily
Precipitation	inches (See 1 below)	Rain Gauge (See 2 below)	Daily
Total Hydraulic Loading (3 below)	inches/month	Calculated	1/Month
<b>BOD<sub>5</sub> Loading</b> (See 4 below)			
Daily Loading	lbs/acre	Calculated	Daily (see 5 below)
Cycle Average Loading Rate (See 6 below)	lbs/acre-day	Calculated	Cycle
<b>Nitrogen Loading</b> (See 4 below)			
From Wastewater	lbs/acre	Calculated	1/Month
From Supplemental irrigation water	lbs/acre	Calculate	1/Month
From Fertilizers (including manure applications)	lbs/acre	Calculated	1/Month
<b>Salt Loading</b> (See 4 below)			
From Wastewater	lbs/acre	Calculated	1/Month
From Supplemental irrigation water	lbs/acre	Calculated	1/Month
<b>Field Conditions</b>			
Nuisance Odor/Vectors	---	Observation	1/Week
Discharge Runoff	---	Observation	1/Week

- 1 Report to the nearest 0.1 inch.
- 2 National Weather Service or California Irrigation Management Information System (CIMIS) data from the nearest weather station is acceptable.
- 3 Combined loading from wastewater, irrigation water, and precipitation.
- 4 BOD<sub>5</sub>, nitrogen, and salt loading shall be calculated as specified in section III of this MRP.
- 5 Daily when wastewater is applied to the LAAs
- 6 A cycle average is calculated by taking the pounds of BOD added to the LAA in a given period divided by the sum of the total days wastewater was applied plus the number of days of rest (no application of wastewater), see section III of the MRP for the calculation.

**G. GROUNDWATER MONITORING (MW-5B, MW-12, MW-13, MW-14, MW-15, AND ANY FUTURE MONITORING WELLS ADDED MW-XX)**

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.

The Discharger shall monitor the current monitoring well network (monitoring wells MW-5B, MW-12, MW-13, MW-14, and MW-15) and any subsequent or additional monitoring wells, in or around the Facility and LAAs (including shallow monitoring wells MW-2, MW-4A, MW-5A, MW-6, MW-7, MW-8, MW-9, MW-10, and MW-11 should groundwater levels start to rise), as follows:

**Table 8 – Groundwater Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
Depth to Groundwater	0.10 Feet	Measured	1/Quarter
Groundwater Elevation (See 1 below)	Feet	Calculated	1/Quarter
Groundwater Gradient	Feet/Feet	Calculated	1/Quarter
pH	pH Units	Grab	1/Quarter
EC	µmhos/cm	Grab	1/Quarter
TDS	mg/L	Grab	1/Quarter
Ammonia	mg/L	Grab	1/Quarter
Nitrate (as NO <sub>3</sub> -N)	mg/L	Grab	1/Quarter
Nitrite (as NO <sub>2</sub> -N)	mg/L	Grab	1/Quarter
TKN	mg/L	Grab	1/Quarter
Total Nitrogen	mg/L	Calculated	1/Quarter
Arsenic	mg/L	Grab	1/Quarter
Iron (see 2 below)	mg/L	Grab	1/Quarter
Manganese (see 2 below)	mg/L	Grab	1/Quarter
Total Organic Carbon	mg/L	Grab	1/Quarter



Constituent/Parameter	Units	Sample Type	Frequency
General Minerals (See 2 below)	mg/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 any groundwater monitoring well(s), as needed to ensure adequate coverage of the Facility and LAAs. 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 quarterly monitoring report. The well(s) shall be replaced following written Executive Officer approval of the work plan. Once installed, all new monitoring wells shall be added to the existing groundwater monitoring well network.

#### H. SOLIDS MONITORING

The Discharger shall maintain detailed records of disposal and/or recycling of residual solids removed from all screens, filters, basins, pits, or ponds. The record should include information on quantity, storage, method of disposal (i.e., livestock feed, composting, etc.) and receipts (if applicable). If manure or solids are applied to any of the LAAs, the applications shall be included in the nitrogen and salt loading calculations. A summary of the information shall be included in the 4<sup>th</sup> Quarter monitoring report.

### III. REPORTING REQUIREMENTS

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: [centralvalleyfresno@waterboards.ca.gov](mailto:centralvalleyfresno@waterboards.ca.gov). Documents 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” St.  
 Fresno, California 93706

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

Program: Non-15  
 Facility: Central Valley Meat Company, Hanford Beef Processing Facility

Order: R5-2023-0028  
County: Kings  
Place ID: 229581

**A transmittal letter shall accompany each monitoring report.** The transmittal 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. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

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

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. In addition, all laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3. of the 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 Standard Provision C.3, 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 **1<sup>st</sup> day of the second month following the quarter** (i.e., the January-March quarterly report is due by 1<sup>st</sup> May). Each Quarterly Monitoring Report shall include the following:

1. Results of the **Influent Monitoring** as specified in Section II.A., including:
  - a. Calculation of the maximum daily and cumulative influent flow for each month of the quarter.
  - b. Calculation of the average EC and FDS value of the influent for each month of the quarter.
2. Results of the **Effluent Monitoring** as specified in Section II.B., including:
  - a. Calculation of the maximum daily and cumulative effluent flow for each month of the quarter.
  - b. Calculation of the average EC and FDS value of the effluent for each month of the quarter.
3. Results of the **Pond Monitoring** as specified in Section II.C.
4. Results of the **Land Application Area Monitoring** as specified in Section II.F., including:
  - a. A Site Map of the LAAs showing predominant features, and LAA number and acreage where wastewater was applied; and
  - b. A summary of the LAAs inspection activities.
  - c. Calculate cycle average BOD<sub>5</sub> loading rate for each field within the LAAs.

The mass of BOD<sub>5</sub> applied to each discrete irrigation area within the LAA on a daily basis shall be calculated using the following formula:

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

Where: M = Mass of BOD<sub>5</sub> applied to each discrete LAA field in lbs/acre/day  
C = Concentration of BOD<sub>5</sub> 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 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.

5. Results of the **Groundwater Monitoring** as specified in Section II.G., including:
  - a. A narrative description of all preparatory, monitoring, sampling, and sample handling for groundwater monitoring.
  - b. A field log for each well documenting depth to groundwater; sample preparation (e.g., filtering); and sample preservation. For each sampling event, the Discharger may provide a table summarizing this information for all groundwater monitoring wells sampled in lieu of providing a field log for each well. The field logs should be made available on request of the Central Valley Water Board.
  - c. Calculation of groundwater elevation at each monitoring well, and determination of groundwater flow direction and gradient on the date of the measurement.
  - d. For each monitoring well, a table showing groundwater depth, elevation, and constituent concentrations for at least the five previous years, up through the current quarter.
  - e. Summary data tables of analytical results collected during the quarter and the current water table elevations.
  - f. A scaled map showing relevant structures and features of the Facility, the locations of monitoring wells, surface waters, and groundwater elevation contours referenced to an appropriate datum (e.g., National Geodetic Vertical Datum).
6. A comparison of monitoring data to the flow limitations and discharge specifications and an explanation of any violation of those requirements.
7. Copies of all laboratory analytical reports.
8. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.

All quarterly monitoring 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 (October–December), due **1<sup>st</sup> February of each year** shall include the following:

1. Total annual effluent flow, and the average monthly flows for the calendar year, compared to the total annual flow limitation of the WDRs Order.
2. Results of **Source Water Monitoring** as specified in Section II.D. If multiple sources are used, the Discharger shall provide sampling results for each source.
3. Results of **Irrigation System Monitoring** as specified in Section II.E.
4. A groundwater monitoring report prepared by a California licensed professional. This report may be prepared separately from the rest of the Quarterly Reports. The report shall contain an analysis of groundwater data collected during the year. The analysis shall include a description of the sample events, copies of the field logs, purge method and volume, groundwater elevation and trend, a groundwater elevation map for each sample event, summary tables showing results for parameters measured, comparison of groundwater quality parameters to applicable water quality objectives, calibration logs for field equipment used, and a general evaluation of any impacts the wastewater discharge is having on groundwater quality.
5. 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 MRP.
6. Names, title, general responsibilities, and contact information for persons responsible for emergency and routine situations at the Facility.
7. Statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (SPRRs C.4).
8. Calibration records for all flow meters used to demonstrate compliance with the flow limits in the WDRs.
9. Discussion on annual chemical usage at the Facility (e.g., chemical name, purpose, and quantity used) that may impact wastewater quality.
10. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.
11. For the LAA, calculate the total mass loading for total nitrogen and salts (FDS).

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

- Where: M = Mass of total nitrogen or FDS, applied to the LAA in lbs/acre/year
- $C_i$  = Flow-weighted average concentration of total nitrogen or FDS for the month  $i$  in mg/L of the blended wastewater and irrigation water.
- $V_i$  = Volume of wastewater and irrigation water applied to the LAAs during the calendar month  $i$  in million gallons
- A = Area of the LAAs (i.e., field) irrigated in acres
- $i$  = The number of the month (e.g., January = 1, February = 2, etc.)
- $M_x$  = Nitrogen and FDS from other sources (e.g., fertilizer and compost) in pounds
- 8.345 = Unit conversion factor.

12. The types of crop(s) grown, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes (as estimated by technical references or, preferable, defined by representative plant tissue analysis).
13. Calculate the cumulative mass loading of FDS from the discharge sent to the LAA for the reporting year (determined using the equation in III.B.11 for each discreet application area). Include a comparison of the cumulative FDS load for the entire LAA to the Performance-Based Salinity Limit specified in the WDRs of 2.0 million pounds per year.
14. Annual production of total solids in tons or cubic yards.
15. A description of the solids disposal methods (if applicable), 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.
  - a) For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.
  - b) For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
  - c) 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).

- d) For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

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](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 July 2023**.

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of the Monitoring and Reporting Program R5-2023-0028 issued by the California Regional Water Quality Control Board, Central Valley Region, on 22 June 2023.

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PATRICK PULUPA, Executive Officer

## GLOSSARY

ALR	Action Leakage Rate
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 also identified as Inorganic TDS
LCRS	Leachate Collection and Removal System
TDS	Total dissolved solids
TKN	Total Kjeldahl nitrogen
TOC	Total organic carbon
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	Every day except weekends or holidays.
1/Week	Once per week.
2/Week	Twice per week on non-consecutive days.
1/Month	Once per calendar month.
2/Month	Twice per month during non-consecutive weeks.
1/Quarter	Once per calendar quarter.
2/Year	Twice per calendar year during the first and the third quarters (i.e., January-March, and July – September).
1/Year	Once per year. Annual samples shall be collected in the third quarter between July and September.
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 (asCaCO <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).