

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

**(TENTATIVE) MONITORING AND REPORTING PROGRAM R5-2024-xxxx
FOR
SANDRIDGE PARTNERS, LP
SANDRIDGE LEMOORE BEEF PROCESSING FACILITY
KINGS COUNTY**

This Monitoring and Reporting Program (MRP), which is separately issued pursuant to California Water Code section 13267 subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharge(s) regulated under Waste Discharge Requirements Order R5-2024-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.

Sandridge Partners, L.P. (hereafter Sandridge or Discharger) owns the land on which the proposed Sandridge Cattle Processing Facility will operate, and the land application areas (LAAs) subject to the WDRs Order. Sandridge is referred to as Discharger and is responsible for compliance with this MRP. 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 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
INF-01	Location where a representative sample of the combined discharges from the holding pens and slaughterhouse can be collected following treatment at the inlet to Effluent Storage Pond No. 1 (PND-01).
EFF-01	Location where a representative sample of the comingled wastewater can be obtained after all treatment and storage (i.e., after storage in PND-001 and PND-02) but prior to discharge to the LAAs or blending with irrigation water (or any other water).
PND-01, PND-02	PND-01 and PND-02 – Onsite lined effluent storage ponds Any future effluent storage ponds added shall be numbered PND-03, PND-04, etc.
SW-01, SW-02, SW-03	On-site source water supply wells SW-01, SW-02, and SW-03, and any future source water wells shall be numbered SW-04, SW-05, etc.
IRR-01	Supplemental irrigation groundwater water well (IRR-01) and any future groundwater irrigation wells (or surface water) used to irrigate the land application areas.
LAA-01, LAA-02	LAA-01 –369-acre LAA LAA-02 –400-acre LAA
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. INFLUENT MONITORING (INF-01)

The Discharger shall monitor the combined discharge of treated wastewater generated from the holding pens and its treated wastewater generated at the beef slaughterhouse at Monitoring Location INF-01 prior to discharge into PND-01 (or PND-02). Samples shall be representative of the volume and nature of the discharge. Time of collection of all samples shall be recorded. Influent monitoring shall include at least the following:

Table 2 – Influent Monitoring (INF-01)

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
pH	s.u.	Grab	2/Month
EC	µmhos/c	Grab	2/Month
BOD ₅	mg/L	Grab	1/Month (see 1 below)
Total Nitrogen	mg/L	Grab	1/Month (see 1 below)

Constituent/Parameter	Units	Sample Type	Frequency
TDS	mg/L	Grab	1/Month (see 1 below)
FDS	mg/L	Grab	1/Month (see 1 below)

1. After 12 months of consecutive monitoring, the minimum monitoring frequency is reduced to quarterly (i.e., 1/quarter).

EFFLUENT MONITORING (EFF-01)

The Discharger shall monitor the quantity and quality of the treated beef processing wastewater at Monitoring Location EFF-01, prior to discharge to the LAAs. 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 – Effluent Monitoring (EFF-01)

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Metered	Continuous
pH	s.u.	Grab	2/Month
EC	µmhos/cm	Grab	2/Month
BOD ₅	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 (see 1 below)
FDS	mg/L	Grab	1/Month (see 1 below)
TSS	mg/L	Grab	1/Month (see 1 below)
COD	mg/L	Grab	1/Quarter (see 2 below)
Total Organic Carbon	mg/L	Grab	1/Quarter (see 2 below)
Total Trihalomethanes	µg/L	Grab	1/Quarter (see 3 below)
General Minerals	mg/L or µg/L	Grab	1/Quarter (see 2 below)

1. After 12 months of consecutive monitoring, the minimum monitoring frequency is reduced to quarterly (i.e., 1/quarter).
2. After four quarters of consecutive monitoring, the minimum monitoring frequency is reduced to semiannual (i.e., 2/Year).
3. After four quarters of consecutive monitoring, the minimum monitoring frequency is reduced to annually (i.e., 1/Year).

C. POND MONITORING (PND-01 AND PND-02.)

The Discharger shall monitor the lined effluent storage ponds at Monitoring Locations PND-01 and/or 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) under each effluent storage pond in accordance with the Facility’s Operation and Maintenance Plan that was included in the 23 May RWD. At a minimum, the ponds shall be monitored as specified in Table 4.

Table 4 – Effluent Storage Pond Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
DO	mg/L	Grab	2/Month (see 1 and 2 below)
pH	s.u.	Grab	2/Month (see 1 and 2 below)
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 for DO, pH, and odors until the odor issue has been resolved and the DO in the pond is greater than 1.0 mg/L.
3. Thickness of settled solids at the bottom of the pond(s)
4. The Discharger shall conduct the pond liner monitoring detailed in the Storage Pond's Operation and Maintenance Plan.
5. The Discharger shall inspect the LCRS sump(s) monthly for presence of leachate. The total flow in each sump shall be recorded. If the total volume of leachate pumped approaches the LCRS capacity (e.g., 90%), the Discharger shall conduct a leachate rate calculation to determine the leakage rate and take the necessary actions to inspect and repair the primary liner system, if applicable.
6. The Discharger shall notify Central Valley Water board staff within seven days if the rate of fluid generation in any LCRS sump exceeds the Action Leakage Rate of 1.9 gallons per minute specified in Discharge Specification E.15 of the WDRs.

D. 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. 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, SW-02, and SW-03)

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

E. IRRIGATION SYSTEM MONITORING

The Discharger shall monitor the irrigation water used to supplement the irrigation of the LAA's. 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 – Supplemental Irrigation 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

F. LAND APPLICATION AREAS

The Discharger shall inspect the LAA's 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 Facility'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 7 - Land Application Area (LAA) Monitoring

Parameter	Units	Sample Type	Frequency
LAA APN and Field Number (See 1 below)	---	---	Daily
Acreage Applied (See 1 below)	Acres	---	Daily
Wastewater Flow (See 1 below)	mgd	Meter	Daily
Hydraulic Wastewater Application Loading (See 1 below)	inches/acre/day	Calculated	Daily
Supplemental Irrigation Flow (See 1 below)	mgd	Meter	Daily
Hydraulic Supplemental Irrigation Application Loading (See 1 below)	inches/acre/day	Calculated	Daily
Precipitation (See 1 below)	inches (See 2 below)	Rain Gauge (See 3 below)	Daily
Total Hydraulic Loading (4 below)	inches/month	Calculated	1/Month
BOD₅ Loading (See 5 below)			
Daily Loading	lbs/acre	Calculated	Daily (see 6 below)
Cycle Average Loading Rate (See 6 below)	lbs/acre-day	Calculated	Cycle
Nitrogen Loading (See 5 below)			
From Wastewater	lbs/acre	Calculated	Monthly
From Supplemental irrigation water	lbs/acre	Calculate	Monthly
From Fertilizers (including manure applications)	lbs/acre	Calculated	Monthly
Salt Loading (See 5 below)			
From Wastewater	lbs/acre	Calculated	Monthly
From Supplemental irrigation water	lbs/acre	Calculated	Monthly
Field Conditions			
Nuisance Odor/Vectors	---	Observation	Weekly

Parameter	Units	Sample Type	Frequency
Discharge Runoff	---	Observation	Weekly

1. Daily when wastewater is applied to the LAAs.
2. Report to the nearest 0.01 inch.
3. National Weather Service or California Irrigation Management Information System (CIMIS) data from the nearest weather station is acceptable.
4. Combined loading from wastewater, irrigation water, and precipitation.
5. BOD₅, nitrogen, and salt loading shall be calculated as specified in section III of this MRP.
6. See section III of the MRP for the cycle average BOD loading rate calculation.

G. GROUNDWATER MONITORING (MW-1 THROUGH MW-8, AND ANY FUTURE GROUNDWATER MONITORING WELLS ADDED)

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 (Spring [March 1 – April 30] and Fall [September 1 – October 31]). The Discharger shall begin groundwater monitoring at least one year prior to discharging wastewater to the LAAs and collect at least two semiannual samples during the periods specified above to establish background water quality conditions.

The Discharger shall monitor the proposed groundwater monitoring well network (monitoring wells MW-1 through MW-8 and any subsequent or additional monitoring wells, in or around the Facility and LAAs as follows:

Table 8 – Groundwater Monitoring

Constituent/Parameter	Units	Sample Type	Frequency
Depth to Groundwater	0.01 Feet	Measured	2/Year
Groundwater Elevation (See 1 below)	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 NO ₃ -N)	mg/L	Grab	2/Year
TKN	mg/L	Grab	2/Year
Total Nitrogen	mg/L	Calculated	2/Year

Constituent/Parameter	Units	Sample Type	Frequency
Arsenic	mg/L	Grab	2/Year
Iron (see 2 below)	mg/L	Grab	2/Year
Manganese (see 2 below)	mg/L	Grab	2/Year
Total Organic Carbon	mg/L	Grab	2/Year
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 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 quarterly monitoring report. The well(s) shall be replaced following written 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. SOLIDS MONITORING

The Discharger shall maintain detailed records for disposal and/or recycling of residual solids removed from the Facility. 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 Annual 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. 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 person, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15
Facility: Sandridge Cattle Processing Facility
Order: MRP R5-2024-xxxx
County: Kings
Place ID: 880629

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 **Influent 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 average EC and BOD 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 monthly average flow for each month of the quarter.
 - b. Calculation of the 12-month rolling average FDS of the discharge for each month of the quarter using the FDS value for that month averaged with the FDS values for the previous 11 months.
3. Results of the **Pond Monitoring** as specified in Section II.C.
4. Results of the **Source Water Monitoring** as specified in Section II.D. 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).
5. Results of **Supplemental Irrigation Water Monitoring** as specified in Section II.E.
6. Results of the **Land Application Area Monitoring** as specified in Section II.F.
 - 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:

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

- 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. 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 the five previous years, up through the current quarter.
 - e. 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).
8. A comparison of monitoring data to the flow limitations and discharge specifications and an explanation of any violation of those requirements.
9. Copies of all laboratory analytical reports.
10. 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 **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 WDRs Order.
6. Names, title, and contact information for persons to contact regarding the Facility for emergency and routine situations.
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. A calibration log verifying calibration of all hand-held monitoring instruments and devices used to comply with the prescribed monitoring program.
9. For the LAA, 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
10. 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, preferably, defined by representative plant tissue analysis).
 11. Calculation of the annual average FDS for Monitoring Location EFF-01. Include a comparison of the annual average concentration to the Performance-Based Effluent Limit specified in the WDRs.
 12. Tabular and graphical summaries of all data collected during the year.
 13. A summary of the handling and disposal of solids removed from the Facility during the calendar year as specified in Section II.F.
 14. An annual update on the Facility's Salinity Evaluation and Minimization Plan (as required per Provision I.5).
 15. A discussion of annual chemical usage at the Facility (e.g., chemical name, purpose, and quantity used).

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$1,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268. 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 xx xxxxxxxx 2026**.

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

PATRICK PULUPA, Executive Officer

IV. GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CaCO ₃	Calcium carbonate
COD	Chemical oxygen demand
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
24-hr Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots over a 24-hour period.
Daily	Once per day
1/Week	Once per week
1/Month	Once per month
2/Month	Twice per month in non-consecutive weeks
1/Quarter	Once per quarter
2/Year	Once every six calendar months (i.e., two times per year) in non-consecutive quarters unless otherwise specified. Groundwater monitoring shall be conducted semiannually (Spring [March 1 – April 30] and Fall [September 1 – October 31])
1/Year	Once per year
mg/L	Milligrams per liter
mg/kg	Milligrams per kilogram
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
gpd	Gallons per day
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
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).