

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2022-0013  
FOR  
ERIKSSON, LLC  
INGLEBY US PISTACHIO PLANT  
FRESNO COUNTY

This Monitoring and Reporting Program (MRP), which is separately issued pursuant to California Water Code section 13267 subdivision (b)(1), establishes monitoring and reporting requirements related to the waste discharges regulated under Waste Discharge Requirements Order R5-2022-0013 (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.

Eriksson, LLC (Discharger) owns and/or operates the Ingleby US Pistachio Plant (Facility) and the Land Application Areas (LAA) subject to WDRs Order R5-2022-0013. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Regional Water Quality Control Board (Central Valley Water Board) adopts, or the Executive Officer issues, a revised MRP.

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

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

## **I. GENERAL MONITORING REQUIREMENTS**

### **A. FLOW MONITORING**

Hydraulic flow rates shall be measured at the monitoring points specified in this MRP. All flow monitoring systems shall be appropriate for the conveyance system (i.e., open channel flow or pressure pipeline) and liquid type. The measurements may be based on flow meter readings or pump run time estimate. 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-001	Location where a representative sample of the waste stream can be obtained prior to discharge to the Lined Settling Pond and blending with irrigation water (or any other water). Flow measurements shall be made at the Processing Meter as shown in Attachment C of the WDRs.
EFF-001	Location where a representative sample of the effluent (i.e., wastewater and/or blended wastewater and irrigation water) leaving the Lined Settling Pond can be obtained prior to being sent to the land application area. Flow Measurements shall be made at the Discharge Meter as shown in Attachment C of the WDRs.
PND-001	Lined Settling Pond monitoring
SW-001	Source water monitoring.
BK-001	Backwash monitoring
IRG	Irrigation System monitoring.
LAA	Land Application Area (LAA) monitoring.
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 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.

If monitoring consistently shows no significant variation in a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency. This monitoring program shall remain in effect unless and until a revised MRP is issued.

## II. SPECIFIC MONITORING REQUIREMENTS

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

During the pistachio processing season, samples of the wastewater influent shall be collected immediately before it enters the Lined Settling Pond. Flow measurements shall be taken at the Processing Meter as shown in Attachment C of the WDRs. Samples shall be representative of the volume and nature of the discharge. Time of collection of a grab sample shall be recorded. Influent monitoring shall include the following:

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

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Meter (see 1 below)	Continuous
pH	pH Units	Grab	1/Week
EC	µmhos/cm	Grab	1/Week

1. Flow measurements based on flow meter readings taken at the Processing Meter as shown in Attachment C. The method of measurement including data used in calculations must be specified.

**B. EFFLUENT MONITORING (EFF-001)**

Effluent samples of the wastewater and/or blended wastewater and irrigation water shall be collected upon leaving the Lined Settling Pond but prior to being applied to the LAA. Effluent samples shall be collected during the processing season and at any time wastewater is discharged from the pond. Flow measurements shall be taken at the Discharge Meter as shown in Attachment C of the WDRs. Effluent monitoring shall include at least the following:

**Table 3. Effluent Monitoring (EFF-001)**

Constituent/Parameter	Units	Sample Type	Frequency
Flow	mgd	Meter (see 1 below)	Continuous
pH	pH Units	Grab	1/Week
EC	µmhos/cm	Grab	1/Week
BOD <sub>5</sub>	mg/L	Grab	1/Week
FDS	mg/L	Grab	1/Week
Potassium	mg/L	Grab	1/Week
Nitrate as N	mg/L	Grab	1/Week
Nitrite as N	mg/L	Grab	1/Week
TKN	mg/L	Grab	1/Week
Total Nitrogen	mg/L	Grab	1/Week
TDS	mg/L	Grab	2/Year (see 2 below)
General Minerals	mg/L	Grab	2/Year (see 2 below)

1. Flow measurements based on flow meter readings taken at the Discharge Meter as shown in Attachment C. The method of measurement including data used in calculations must be specified
2. Samples shall be collected twice per year in non-consecutive weeks during the processing season.

**C. POND MONITORING (PND-001)**

The Discharger shall monitor the Lined Settling Pond (PND-001) when wastewater is present. Freeboard shall be visually monitored vertically from the surface of the water to the lowest elevation of the berm to maintain one foot of freeboard. Marks may be made on the liner, or a measuring stick may be used to record visual measurements. Samples for dissolved oxygen shall be collected at a depth of one foot below the surface of the water opposite the inlet. At a minimum, the pond shall be monitored as specified in Table 4 below:

**Table 4. Pond Monitoring (PND-001)**

Constituent/ Parameter	Units	Sample Type	Frequency
DO	mg/L	Grab	1/Week (see 1 and 2 below)
pH	std. units	Grab	1/Week (see 1 and 2 below)
Freeboard	Nearest Inch	Observation	1/Week
Odors	--	Observation	1/Week
Liner Condition	--	Observation	1/Year (see 3 below)
Solids Depth (see 4 below)	inches	Grab	1/Year (see 5 below)
Lysimeter Pan (see 6 below)	gallons	Grab	1/Year

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 and pH until the odor issue has been resolved.
3. In July or August prior to the start of the processing season.
4. Thickness of settled solids accumulated at the bottom of the pond.
5. In November after the processing season.
6. The Discharger shall conduct annual performance monitoring of the pond liner in accordance with the 24 July 2017 Pond Liner Operation, Maintenance, and Monitoring Plan. Within 30 days of filling the pond during the harvest season, the Discharger shall purge the pan lysimeter and note the volume of purged water and collect an EC reading. After the initial purge, the Discharger shall pump the pan lysimeter again (minimum 24 hours after the initial purge) and note the volume pumped and collect an EC reading from the second purge. The results of the pan lysimeter monitoring shall be included in the annual monitoring report.

**D. SOURCE WATER MONITORING (SW-001)**

The source water for Facility operations shall be monitored. Samples shall be representative of the source water supplied to the Facility after treatment. 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-001)**

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

1. Samples shall be collected once per year in September during the processing season.

**E. BACKWASH MONITORING (BK-001)**

The Discharger shall monitor the backwash water from the water treatment system during backwash events. Backwash monitoring shall include at least the following:

**Table 6. Backwash Monitoring (BK-001)**

Constituent/Parameter	Units	Sample Type	Frequency
Flow	gallons	Meter (see 1 below)	Continuous
pH	std. units	Grab	1/Month and 2/Year (see 2 below)
EC	µmhos/cm	Grab	1/Month and 2/Year (see 2 below)
General Minerals	mg/L	Grab	Once/5 years (see 3 below)
Arsenic	µg/L	Grab	Once/5 years (see 3 below)

1. Flow measurements may be based on flow meter readings or estimated based on pump run time or similar approved method. The method of measurement including data used in calculations must be specified.
2. Samples of the backwash water shall be collected once a month during a backwash event for one year. Thereafter, samples of the backwash water shall be collected twice per year in March and September during a backwash event.
3. Samples shall be collected once every five years starting in 2022.

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

The Discharger shall monitor the irrigation water in use at the Facility. Samples of the irrigation water shall be representative of the irrigation water blended with the wastewater in the pond and/or applied directly to the land application areas receiving wastewater. If the irrigation water is from more than one source, samples from all sources will be provided. Irrigation water monitoring shall include at least the following:

**Table 7. Irrigation System Monitoring (IRG)**

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

1. Samples shall be collected once per year in September during the processing season. Note, if the irrigation water is the same as the source water for the Facility operations (i.e., SW-001) only one sample is required.

In addition, prior to the start of the pistachio processing season, the Discharger shall conduct an annual inspection of its irrigation system. The inspection shall note all irrigation lines and connections to fields that will be used for application of wastewater. In addition, the Discharger shall note any locations 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 Annual Report.

**G. LAND APPLICATION AREA MONITORING (LAA)**

The Discharger shall inspect the LAA 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 and included as part of the annual monitoring 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 5. Land Application Area Monitoring**

Constituent/Parameter	Units	Sample Type	Frequency
Fields Irrigated	acres	n/a	Daily
Irrigation flow (see 1 below)	mgd	Metered	Daily
Irrigation loading (see 1 below)	inches/day	Calculated	Daily
Precipitation	inches	Rain gage (see 2 below)	Daily

Constituent/Parameter	Units	Sample Type	Frequency
<b>BOD Loading</b> (see 3 below)			
cycle average loading rate (see 4 below)	lbs/acre-day	Calculated	Cycle
<b>Nitrogen Loading</b> (see 3 below)			
from wastewater	lbs/acre	Calculated	1/Year
from fertilizer	lbs/acre	Calculated	1/Year
<b>Salt and Potassium Loading</b> (see 3 below)			
from wastewater	lbs/acre	Calculated	1/Year
from fertilizer	lbs/acre	Calculated	1/Year

1. Irrigation flow and irrigation loading will be the combined flow of wastewater and irrigation water discharged to the LAA. Flow measurements shall be taken at the Discharge Meter as shown in Attachment C of the WDRs.
2. National Weather Service or CIMIS data from the nearest weather station is acceptable.
3. BOD, nitrogen, salt, and potassium loading shall be calculated as specified in section III of this MRP.
4. 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.

**H. SOLIDS MONITORING (SOLIDS)**

The Discharger shall maintain detailed records for disposal and/or recycling of residual solids removed during the hulling operations. The record should include information on quantity, storage, method of disposal (i.e., livestock feed, soil amendment, composting, etc.) and receipts (if applicable). For solids applied to the land application areas, a map shall be provided identifying specific locations as well as any sample results used to evaluate agronomic loading. 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](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 person, the following information should be included in the body of the email or transmittal sheet:

Program: Non-15,  
Facility: Ingleby US Pistachio Plant  
Order: MRP R5-2022-0013  
County: Fresno  
Place ID: 835295

**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. ANNUAL MONITORING REPORTS**

Annual Monitoring Reports shall be prepared and submitted to the Central Valley Water Board by **1<sup>st</sup> February each year**. The Annual Monitoring Report shall include the following:

1. Names, title, and contact information for persons to contact regarding the Facility for emergency and routine situations.
2. Calibration records for all flow meters used to demonstrate compliance with the flow limits in the WDRs.
3. Results of **Influent Monitoring** as specified in Section II.A, including:
  - a. Calculation of the maximum daily flow, average daily flow, and cumulative annual flow for the processing season.
4. Results of **Effluent Monitoring** as specified in Section II.B, including:
  - a. Calculation of the maximum daily flow, average daily flow, and cumulative annual flow for the discharge from the Lined Settling Pond to the Land Application Area.
  - b. Season average EC of the discharge of wastewater and/or blended wastewater and irrigation water leaving the Lined Settling Pond and applied to the LAA.
5. Results of **Pond Monitoring** as specified in Section II.C.
6. Results of **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).
7. Results of **Backwash Monitoring** as specified in Section II.E.
8. Results of **Irrigation System Monitoring** as specified in Section II.F. If the irrigation supply is from more than one source. The Discharger shall calculate the flow-weighted average concentration for each constituent monitored (include supporting calculations). In addition, the Irrigation System Monitoring shall include:

- a. A map showing the location and identification of the various irrigation areas (i.e., fields) as well as the irrigation lines used to carry and transport wastewater to the various irrigation areas.

9. Results of **Land Application Area Monitoring** as specified in Section II.G., including:

- a. Summary of the inspection activities conducted by the Discharger.
- b. Calculate the cycle average BOD loading rate for the LAA.

The mass of BOD<sub>5</sub> 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 BOD<sub>5</sub> applied to an LAA in lbs/ac/day
  - $C$  = Concentration of BOD<sub>5</sub> in mg/L based on the average concentration for the week
  - $V$  = Total volume of wastewater applied to discrete LAA fields during the irrigation cycle, in millions of gallons
  - $A$  = Area of the LAA irrigated in acres
  - $T$  = Irrigation cycle length in days (from the first day wastewater is applied to the last day of the drying time)
  - 8.345 = Unit conversion factor.

- c. Calculate the total mass loading for total nitrogen, salts (FDS), and potassium for each field within the LAA.

The mass of total nitrogen, FDS, and potassium applied to each LAA field shall be calculated using the following formula and compared to published crop demand for the crops actually grown:

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

- Where:
- $M$  = Mass of total nitrogen, FDS, or potassium applied to the LAA in lbs/ac/yr
  - $C_i$  = Average concentration of total nitrogen, FDS, and potassium for the month  $i$  in mg/L of blended wastewater and irrigation water.
  - $V_i$  = Volume of wastewater and irrigation water applied to the LAA during calendar month  $i$  in million gallons
  - $A$  = Area of the LAA (i.e., field) irrigated in acres

- $I$  = The number of the month (e.g., January = 1, February = 2, etc.)
- $M_x$  = Nitrogen, FDS, and potassium mass from other sources (e.g., fertilizer and compost) in pounds
- 8.345 = Unit conversion factor

10. Copies of all laboratory analytical reports.
11. A comparison of monitoring data to the flow limitations and the salinity effluent limitation specified in the WDRs and an explanation of any violations of those requirements.
12. A discussion of annual chemical usage at the Facility (e.g., chemical name, purpose, and quantity used).
13. A summary of the handling and disposal of solids removed during the hulling operations within the calendar year as specified in Section II.H.
14. A summary of any changes in processing that might affect waste characterization and/or discharge flow rates.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. 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."*

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 begin implementation of the above monitoring program starting **1 March 2022**.

I, PATRICK PULUPA, Executive Officer, do hereby certify the forgoing is a full, true and correct copy of the Monitoring and Reporting Program R5-2022-0013 issued by the California Regional Water Quality Control Board, Central Valley Region, on 17 February 2022.

Ordered by:

PATRICK PULUPA, Executive Officer

## GLOSSARY

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