

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-XXXX

CALIFORNIA OLIVE RANCH
ARTOIS MILL AND RANCH
GLENN COUNTY

This monitoring and reporting program (MRP) is required pursuant to Water Code section 13267. The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Regional Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form. All analyses shall be performed in accordance with Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that:

1. The operator is trained in the proper use of the instrument;
2. The instruments are calibrated prior to each use;
3. Instruments are serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

In addition to details specified in Standard Provisions, Provisions for Monitoring C.3., records of monitoring information shall also include the following:

1. Analytical method;
2. Measured value;
3. Units;
4. Method detection limit (MDL);
5. Reporting limit (RL) (i.e. a practical quantitation limit or PQL); and

All laboratory results shall be reported down to the MDL. Non-detect results shall be reported as less than the MDL (<MDL). Results above the MDL, but below the concentration of the lowest calibration standard for multipoint calibration methods or below the reporting limit for other methods, shall be flagged as estimated.

Analytical procedures shall comply with the methods and holding times specified in: *Methods for Chemical Analysis of Water and Wastes* (EPA-600/4-79-020, 1983); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA/600/R-93/100, 1993); *Standard Methods for the Examination of Water and Wastewater*, 20th Edition 9WEF, APHA,

AWWA); and *Soil, Plant and Water Reference Methods for the Western Region, 2003, 2nd Edition* (hereafter Western Region Methods).

WASTEWATER MONITORING

Wastewater samples shall be collected after the disk filter at the Facility prior to dispersal into the irrigation system. The Discharger shall monitor the discharge for the constituents and frequencies specified below throughout the processing season and while there is a wastewater discharge to the land application area.

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Daily Flow	Gallons	Continuous	Daily
pH	pH units	Grab	Twice per Month ⁴
Biochemical Oxygen Demand ¹	mg/L	Grab	Twice per Month ⁴
Electrical Conductivity	umhos/cm	Grab	Twice per Month ⁴
Total Dissolved Solids	mg/L	Grab	Twice per Month ⁴
Fixed Dissolved Solids	mg/L	Grab	Twice per Month ⁴
Total Nitrogen ²	mg/L	Grab	Twice per Month ⁴
General Minerals ³	mg/L	Grab	Annually

¹Five-day, 20°C.

²Total kjeldahl nitrogen and nitrate.

³General mineral analytes may vary depending on the lab, but shall include at least the following: alkalinity, bicarbonate, boron, calcium, carbonate, chloride, hardness, magnesium, phosphorus, potassium, sodium, and sulfate. An anion/cation balance shall accompany results.

⁴Twice monthly monitoring should occur in non-consecutive weeks when feasible.

WATER SUPPLY MONITORING

The supply water (source well) for the Facility shall be monitored during the processing season for the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Electrical Conductivity	umhos/cm	Grab	Annually
Total Nitrogen ¹	mg/L	Grab	Annually
Total Dissolved Solids	mg/L	Grab	Annually

¹Total kjeldahl nitrogen plus nitrate

IRRIGATION SUPPLY MONITORING

The supplemental irrigation supply water (District water) and agricultural irrigation well(s) for the land application area shall be monitored during the processing season for the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Electrical Conductivity	umhos/cm	Grab	Annually
Total Nitrogen ¹	mg/L	Grab	Annually
Total Dissolved Solids	mg/L	Grab	Annually

¹Total kjeldahl nitrogen plus nitrate

LAND APPLICATION AREA MONITORING

The Discharger shall monitor the land application area throughout the processing season and while there is a discharge. Monitoring of the land application area shall include the following:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Supplemental Irrigation Flow	Gallons per Well	Calculated ¹	Daily ⁵
Rainfall	Inches	Measured ²	Daily ⁵
Wastewater flow	Gallons	Metered	Daily ⁵
Wastewater application area	Acres	N/A	Daily ⁵
Wastewater application rate	gal/acre-day	Calculated	Daily ⁵
BOD loading ³			
Day of application	lbs/acre	Calculated	Daily ⁵
Cycle average	lbs/acre/day	Calculated	Daily ⁵
Nitrogen loading ⁴			
From wastewater	lbs/acre/year	Calculated	Annually ⁶
From irrigation water	lbs/acre/year	Calculated	Annually ⁶
From fertilizers	lbs/acre/year	Calculated	Annually ⁶
Inorganic TDS loading ⁴	lbs/acre/year	Calculated	Annually ⁶

¹Based on application area and pump run times.

²Data obtained from the nearest National Weather Service rain gauge is acceptable.

³Loading rate to be calculated using the applied volume of wastewater, applied acreage, and average of the two most recent concentrations for BOD. The BOD loading rates shall be divided by the number of days between applications to determine cycle average.

⁴Wastewater nitrogen and inorganic TDS loading shall be calculated as a flow-weighted average using the applied volume of wastewater, actual application area, and the average concentration of total nitrogen and inorganic TDS for the season (starting as zero each January 1).

⁵Reporting frequency shall be Monthly.

⁶Reporting frequency shall be Annually.

The Discharger shall inspect the wastewater land application area **at least once daily prior and during irrigation events** and observations from those inspections shall be documented for

inclusion in the monthly monitoring reports. The following items shall be documented for each area to be irrigated on that day:

1. Soil saturation, ponding, and evidence of soil clogging;
2. Potential runoff to off-site areas and/or surface water;
3. Accumulation of organic solids at soil surface;
4. Odors that have the potential to be objectionable at or beyond the property boundary;
and
5. Vector insects.

SOLIDS/POMACE DISPOSAL MONITORING

The Discharger shall record and report **monthly** the quantity, disposal location, hauler, and method of disposal of solids/pomace generated during the process season.

The storage of any solids and olive pomace shall be described. The description shall include the material stored, approximate amount, location of storage, and measures implemented to prevent leachate generation or control and dispose of any leachate that is generated.

DOMESTIC LEACHFIELD AND SEPTIC TANK MONITORING

Septic tank maintenance inspections (including tank sludge level measurement) shall be performed at least **once every 5 years**. The leachfield(s) that is used to dispose of domestic wastewater shall be monitored and reported **monthly** when the Facility is in operation for signs of surfacing effluent and excessive weed growth.

REPORTING

The Discharger shall report monitoring data and information as required in this MRP as required in the Standard Provisions.

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g. wastewater, water supply), sample location, and the reported analytical result for each sample are readily discernable. 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 analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in this MRP, shall be reported to the Central Valley Water Board and used in determining compliance.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Central Valley Water Board on the **1st day of the second month following sampling** (i.e., the September report is due by 1 November). Wastewater monitoring is required in months when the facility is actively processing olives, processing olive oil, or performing cleaning activities prior to or after processing.

B. Annual Report

An annual report shall be submitted to the Central Valley Water Board by **1 February of the year following the processing season**. The Annual Report shall include the following:

1. The names and telephone numbers of persons to contact regarding emergency and routine situations;
2. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4.);
3. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss corrective actions taken and planned to bring the discharge into full compliance with this Order;
4. A discussion on the type of crops grown and their nutrient requirements; and
5. A discussion on loading rates.

A transmittal letter shall accompany each self-monitoring report. The letter shall discuss any violations during the reporting period and all actions taken or planned for correcting violations, such as operation of facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the certification statement by the Discharger or the Discharger's authorized agent, as described in the Standard Provisions General Reporting Requirements Section B. 3.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

(date)