

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

REVISED MONITORING AND REPORTING PROGRAM 71-37-002

FOR

GOLDSTONE LAND COMPANY, LLC AND KURT KAUTZ
BEAR CREEK WINERY
SAN JOAQUIN COUNTY

This Monitoring and Reporting Program (MRP) replaces and rescinds the previous Revised MRP No. 71-37, which was issued by the Executive Officer on 28 April 2003. The Discharger shall comply with this MRP, which prescribes requirements for monitoring industrial process wastewater, wastewater ponds, land application areas, process water supply and groundwater. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

This MRP is issued pursuant to Water Code section 13267. Water Code section 13267(b) Section 13267 of the California Water Code states, in part:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

Section 13268 of the California Water Code states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of Section 13399.2, or falsifying and information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

The Discharger owns and operates the facility that generates the waste, as well as the land discharge areas subject to this MRP. The reports required herein are necessary to determine compliance with the WDRs and provide information that is necessary for developing updated WDRs for the facility.

All wastewater samples shall be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Winery wastewater flow monitoring shall be conducted continuously using a flow meter and shall be reported in cumulative gallons per day.

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

1. The operator is trained in the proper use of the instrument;
2. The instruments are field calibrated prior to each use;
3. 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.

Analytical procedures shall comply with the methods and holding times specified in the following: *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 or the California Department of Public Health's Environmental Laboratory Accreditation Program. 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.

WINERY WASTEWATER MONITORING

Winery wastewater samples shall be collected prior to discharge to the rapid infiltration checks and vineyards used as Land Application Areas (LAAs). Monitoring shall include, at a minimum, the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	Gallons	Metered	Continuous ¹	Monthly
pH	Std.	Grab	Weekly	Monthly
BOD ₅ ²	mg/L	Grab	Monthly	Monthly
Fixed Dissolved Solids	mg/L	Grab	Monthly	Monthly
Sulfate	mg/L	Grab	Monthly	Monthly
Chloride	mg/L	Grab	Monthly	Monthly

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Sodium	mg/L	Grab	Monthly	Monthly
Potassium	mg/L	Grab	Monthly	Monthly
Nitrate Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly

¹ Continuous monitoring requires daily meter reading or automated data collection.

² Five-day, 20° Celsius Biochemical Oxygen Demand.

RAPID INFILTRATION CHECK AND LAND APPLICATION AREA MONITORING

The Discharger shall monitor the discharge to the rapid infiltration checks and LAAs. Monitoring of the rapid infiltration checks and LAAs shall be conducted daily during operation and the results shall be included in the monthly monitoring report. Evidence of erosion, field saturation, runoff, or the presence of nuisance conditions shall be noted in the report. Wastewater and supplemental irrigation water monitoring data shall be used, as applicable, to calculate loading rates at the rapid infiltration checks and LAAs. Monitoring of the rapid infiltration checks and each LAA shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Wastewater Flow to Rapid Infiltration Checks and each LAA	Gallons	Continuous ¹	Daily	Monthly
Supplemental Irrigation Flow to each LAA	Gallons	Run Time ²	Daily	Monthly
Applied Acreage ³	Acres	Calculated	Daily	Monthly
Combined Wastewater and Supplemental Irrigation Application Rate for each LAA	Inches	Calculated	Daily	Monthly
Total Nitrogen Loading Rate ⁴	Lbs/acre ⁵	Calculated	Monthly	Monthly
Flow Weighted FDS Concentration	mg/L ⁵	Calculated	Monthly	Monthly
BOD ₅ Loading Rate	Lbs/acre/day ⁶	Calculated	Monthly	Monthly

¹ Continuous monitoring requires daily meter reading or automated data collection.

² Based on estimated pumping rate. Continuous monitoring using a flow meter is not required at this time, but will be included in revised WDRs.

³ Land application areas used shall be identified. If a portion of the area us used, the acreage used in the calculation shall be estimated.

⁴ Total nitrogen applied from all sources, including wastewater, fertilizers and supplemental irrigation water.

⁵ Report monthly total and cumulative annual to date.

⁶ Report application cycle average and maximum daily loading.

SUPPLEMENTAL IRRIGATION WATER MONITORING

Samples of the supplemental irrigation water used to irrigate rapid infiltration checks and LAAs shall be collected prior to discharge. Monitoring shall include, at a minimum, the following:

<u>Constituent</u>	<u>Unit s</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ¹	<u>Reporting Frequency</u>
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Fixed Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Chloride	mg/L	Grab	Quarterly	Quarterly
Sodium	mg/L	Grab	Quarterly	Quarterly
Potassium	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly

¹ Supplemental irrigation monitoring can convert to an annual frequency after the second quarter of 2015.

GROUNDWATER MONITORING

Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below. All samples shall be collected using EPA approved methods and water table elevations shall be calculated and used to determine groundwater gradient and direction of flow.

Prior to sampling, depth to groundwater elevations shall be measure and the wells shall be purged at least three well volumes until temperature, pH, and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Groundwater monitoring for all monitoring wells shall include, at a minimum, the following:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u> ¹	<u>Reporting Frequency</u>
Depth to Groundwater	±0.01 feet	Measurement	Bi-Monthly	Quarterly
Groundwater Elevation ²	±0.01 feet	Calculated	Bi-Monthly	Quarterly
Gradient	feet/feet	Calculated	Bi-Monthly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Bi-Monthly	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Bi-Monthly	Quarterly
pH	mg/L	Grab	Bi-Monthly	Quarterly
Sulfate	mg/L	Grab	Bi-Monthly	Quarterly
Chloride	mg/L	Grab	Bi-Monthly	Quarterly
Sodium	mg/L	Grab	Bi-Monthly	Quarterly
Potassium	mg/L	Grab	Bi-Monthly	Quarterly
Iron	mg/L	Grab	Bi-Monthly	Quarterly
Manganese	mg/L	Grab	Bi-Monthly	Quarterly
Bicarbonate	mg/L	Grab	Bi-Monthly	Quarterly

- ¹ The groundwater monitoring frequency shall switch to quarterly after the second quarter of 2015.
- ² Groundwater elevation shall be determined based on depth-to-water measurements from a surveyed measuring point elevation on the well.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., wastewater pond monitoring, groundwater monitoring, 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.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all groundwater monitoring reports shall be prepared under the direct supervision of a registered professional engineer or geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly monitoring reports shall be submitted to the Central Valley Water Board by the **1st day of the second month** following the end of the reporting period (e.g. the January monthly report is due by 1 March). The monthly reports shall include the following:

1. Results of winery wastewater, land treatment unit, and supplemental irrigation monitoring;
2. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format;
3. If requested by staff, copies of laboratory analytical report(s);
4. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program;
5. The total pounds of total dissolved solids (year to date) that have been applied to the land treatment unit, as calculated from the sum of the monthly loadings; and
6. The total pounds of nitrogen in fertilizer applied to the land treatment units for the month.

B. Quarterly Monitoring Reports

The Discharger shall establish a bi-monthly groundwater sampling schedule for groundwater monitoring such that samples are obtained approximately every two months through June 2015. After that, the Discharger shall establish a quarterly groundwater sampling schedule such that samples are obtained approximately every three months. Regardless of the monitoring frequency, the monitoring data obtained during each calendar quarter shall be compiled into quarterly monitoring reports, which shall be submitted to the Regional Board by the **1st day of the second month after each monitored interval** (e.g. the January-March

quarterly monitoring report is due by May 1st).

The Quarterly Monitoring Report shall include the following:

1. Results of all groundwater monitoring completed during the calendar quarter;
2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDRs, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; method of purging and parameters measured before, during, and after purging. Low or no-purge sampling methods are acceptable if described in an approved Sampling and Analysis Plan.
3. For each groundwater monitoring event, calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison with previous flow direction and gradient data, and discussion of seasonal trends if any;
4. Summary data tables of historical and current water table elevations and analytical results;
5. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum;
6. Results of all supplemental irrigation monitoring completed during the calendar quarter; and
7. Copies of laboratory analytical report(s) for groundwater and supplemental irrigation monitoring.

C. Annual Monitoring Report

The Annual Monitoring Report shall be submitted to the Central Valley Water Board by **1 February** each year. The Annual Monitoring Report shall include the following:

1. If requested by staff, tabular and graphical summaries of all data collected during the year.
2. Calculation of the following for the rapid infiltration checks and each LAA along with supporting data and calculations:
 - a. The total hydraulic loading in inches (including wastewater and supplemental irrigation water as applicable);
 - b. The total nitrogen loading in pounds per acre per year;
 - c. The flow weighted annual FDS concentration of applied water (including wastewater and supplemental irrigation water as applicable);
 - d. Minimum and maximum BOD loading rates for both daily and cycle average loadings.

3. A comprehensive evaluation of the effectiveness of the past year's wastewater application operation in terms of odor control and groundwater protection, including consideration of application management practices (e.g., waste constituent and hydraulic loadings, application cycles, drying times, and cropping practices), and groundwater monitoring data;
4. A description of the quantity of solid waste (lees, stems, pomace, etc.) generated and disposed of on the site. If solid waste, sludge, or lees waste is shipped offsite, then a description of the quantity of each waste shipped offsite and the location of the disposal site shall be included with the report;
5. An evaluation of the groundwater quality under the rapid infiltration checks and LAAs;
6. 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 waste discharge requirements;
7. A discussion of any data gaps or potential deficiencies/redundancies in the monitoring system or reporting program; and
8. The results of the annual monitoring for the groundwater and supplemental irrigation system.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or 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 a statement by the Discharger, or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete.

The Discharger shall implement the above monitoring program as of 1 July 2014.

Ordered by: Original signed by Andrew Altevogt
PAMELA C. CREEDON, Executive Officer

30 June 2014
(Date)