

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION  
MONITORING AND REPORTING PROGRAM NO. R5-2002-0169

FOR  
JERRY AND ERIKA WRIGHT  
VILLA TOSCANO WINERY  
AMADOR COUNTY

This monitoring and reporting program (MRP) presents requirements for monitoring of the winery wastewater and vineyard irrigation. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Specific sampling station locations shall be approved by Regional Board staff prior to implementation of sampling activities.

All wastewater samples should 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 those used to measure 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 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.

### WINERY SEPTIC TANK MONITORING

The Discharger shall monitor the depth of sludge in the winery's septic tank on a monthly basis. The Discharger shall also report the volume of waste removed, the name of the pumping/transport company, and the sludge disposal site. This information shall be submitted in the monthly reports.

### INFLUENT MONITORING

Winery wastewater samples shall be collected prior to entering the constructed wetland. Influent 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	Monthly
BOD <sub>5</sub> <sup>1, 2</sup>	mg/l	Grab	Monthly	Monthly

<sup>1</sup> If no wastewater is discharged during the month, then influent monitoring for BOD is not required.

<sup>2</sup>Five-day, 20° Celsius Biochemical Oxygen Demand.

### CONSTRUCTED WETLANDS (CW) MONITORING

Winery wastewater samples shall be collected from the CW, prior to discharge into the storage pond. Samples shall be collected in any month in which there is any discharge from the CW to the storage pond. If wastewater is not discharged into the storage pond, then samples for chemical analysis are not required to be collected; however the Discharger must still perform the monthly monitoring observations. CW 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>
pH	pH units	Grab	Weekly	Monthly
BOD <sub>5</sub> <sup>1</sup>	mg/l	Grab	Monthly	Monthly
Constructed wetland <sup>2,3</sup>	NA	Observation	Monthly	Monthly

<sup>1</sup>Five-day, 20° Celsius Biochemical Oxygen Demand. The Discharger shall perform BOD monitoring for the first twenty-four months of operation after which the Discharge may cease BOD monitoring.

<sup>2</sup>CW containment berms shall be observed for signs of seepage or surfacing water along the exterior toe of the berm. If surfacing water is found, then a sample shall be collected and tested for pH and total dissolved solids.

<sup>3</sup>CW shall be observed for signs of surfacing water within the wetlands, odors, or nuisance conditions.

### EFFLUENT AND STORAGE POND MONITORING

Samples shall be collected from an established sampling station located in an area that will provide a sample representative of the water in the storage pond. Freeboard will be measured vertically from the surface of the pond water to the lowest elevation of the surrounding berm and shall be measured to the nearest 0.1 feet. Monitoring of the storage pond 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>
pH	pH units	Grab	Weekly	Monthly
BOD <sub>5</sub> <sup>1</sup>	mg/l	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/l	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/l	Grab	Monthly	Monthly
Total Dissolved Solids	mg/l	Grab	Monthly	Monthly
Dissolved Oxygen <sup>2</sup>	mg/l	Grab	Monthly	Monthly
Freeboard	0.1 feet	Observation	Monthly	Monthly
Berm Seepage <sup>3</sup>	NA	Observation	Monthly	Monthly

<sup>1</sup>Five-day, 20° Celsius Biochemical Oxygen Demand.

<sup>2</sup>Monitoring for dissolved oxygen concentrations must be performed before 9:00 a.m.

<sup>3</sup>Pond containment berms shall be observed for signs of seepage or surfacing water along the exterior toe of the berm. If surfacing water is found, then a sample shall be collected and tested for pH and total dissolved solids.

### VINEYARD MONITORING

The Discharger shall monitor the wastewater discharged to the vineyard. Monitoring shall be conducted daily (when wastewater is discharged) and the results shall be included in the monthly monitoring report. Evidence of erosion, field saturation, runoff, and the presence of nuisance conditions shall be noted in the report. Calculations shall be used to ascertain loading rates at the disposal area. Monitoring of the effluent and the vineyard 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>
Flow from the storage pond to fields	gallons	Continuous	Daily	Monthly
Rainfall	Inches	Measurement	Daily	Monthly
Acreage Applied <sup>1</sup>	acres	Calculated	Daily	Monthly
Application Rate	gal/acre/day	Calculated	Daily	Monthly
Total Nitrogen Loading Rate <sup>2</sup>	lbs/acre/month	Calculated	Monthly	Monthly
Total Dissolved Solids Loading Rate from winery wastewater	lbs/month	Calculated	Monthly	Monthly
BOD <sub>5</sub> Loading Rate	lbs/acre/day	Calculated	Monthly	Monthly

<sup>1</sup> Disposal fields shall be identified

<sup>2</sup> Total Nitrogen applied from all source including fertilizers

### LEAK DETECTION SYSTEM (LDS) MONITORING

Effective 1 December 2002, any time water is present in the LDS for either the CW or storage pond, samples shall be collected from an established sampling stations that will provide a sample representative of the water in the LDS. Monitoring of the seepage from the constructed wetlands and/or the storage pond 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>
Presence/absence of leachate	NA	Observation	Daily	Monthly
Flow from LDS <sup>1</sup>	gallons	Continuous	Daily	Monthly
pH <sup>1</sup>	pH units	Grab	Monthly	Monthly
Total Dissolved Solids <sup>1</sup>	mg/l	Grab	Monthly	Monthly

<sup>1</sup> If leachate is detected, then the Discharger shall monitor the leechate as specified above.

## **REPORTING**

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

### **A. Monthly Monitoring Reports**

Monthly reports shall be submitted to the Regional Board by the **1<sup>st</sup> day of the second month** following the end of the reporting period (i.e. the September monthly report is due by 1 November). The monthly reports shall include the following:

1. Results of septic tank, influent, constructed wetlands, storage pond, leak detection system, and vineyard 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 (calendar year to date) that have been applied to the vineyard, as calculated from the sum of the monthly loadings;
6. The amount of wastewater which has been hauled off-site by a septic hauler during the month. Provide copies of invoices showing the amount and date hauled; and
7. The amount of solids which have been hauled offsite and the location hauled to.

### **B. Annual Report**

Beginning with the year 2002, an Annual Report shall be prepared as the December monthly monitoring report. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. The contents of the regular December monthly monitoring report;
2. The annual total dissolved solids and nitrogen loadings which have been applied to the land application areap;

3. The results of the annual tracer test for the CW and the total amount of vegetation removed from the CW;
4. The annual volume of wastewater discharged to the CW;
5. If requested by staff, tabular and graphical summaries of all data collected during the year;
6. An evaluation of the performance of the wastewater treatment system, as well as a forecast of the flows anticipated in the next year;
7. An evaluation of the integrity of the liner beneath the constructed wetlands and storage pond, plans and time-line for any repairs, and an estimation of the remaining life of each liner;
8. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements; and
9. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;

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 the date of this Order.

Ordered by: \_\_\_\_\_  
THOMAS R. PINKOS, Acting Executive Officer

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6 September 2002  
(Date)