

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2012-XXXX

FOR  
VILLA TOSCANO INC.  
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 Central Valley Water Board staff shall approve specific sampling locations prior to any 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.

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.

**FLOW MONITORING**

The Discharger shall monitor wastewater flows as follows:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
<b>Prior to Completion of the New Wastewater Treatment System:</b>				
Influent flow to septic tank	gpd	Meter Observation	Daily	Monthly
Effluent flow to each vineyard LAA	gpd	Meter Observation	Daily	Monthly
Effluent flow to pasture LAA	gpd	Meter Observation	Daily	Monthly
Effluent removed from site for off-site disposal	gpd	Meter Observation	Daily	Monthly
Wastewater volume in holding tank	gallons	Sight Gauge Observation	Daily	Monthly

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
<b>After Completion of the New Wastewater Treatment System:</b>				
Effluent flow to each vineyard LAA	gpd	Meter Observation	Daily	Monthly
Effluent flow to pasture LAA	gpd	Meter Observation	Daily	Monthly
Effluent removed from site for off-site disposal	gpd	Meter Observation	Daily	Monthly
Total effluent flow to the LAAs	gpd	Meter Observation	Daily	Monthly
Wastewater volume in holding tank	gallons	Sight Gauge Observation	Daily	Monthly

### INFLUENT MONITORING

Winery wastewater samples shall be collected prior to entering the flow equalization (septic) tank. 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>
pH	pH units	Grab	Weekly	Monthly
BOD <sub>5</sub> <sup>1</sup>	mg/L	Grab	Monthly	Monthly

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

### EFFLUENT MONITORING

Effluent samples shall be representative of the treated wastewater prior to discharge to the land application areas. Samples shall be collected from an established sampling station downstream of the holding tank. At a minimum, effluent monitoring shall include 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
Dissolved oxygen	mg/L	Grab	Weekly	Monthly
BOD <sub>5</sub> <sup>1</sup>	mg/L	Grab	Monthly	Monthly
Total nitrogen	mg/L	Grab	Monthly	Monthly
Total dissolved solids	mg/L	Grab	Monthly	Monthly
Electrical conductivity	umhos/cm	Grab	Monthly	Monthly

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

### LAND APPLICATION AREA MONITORING

The Discharger shall monitor the wastewater discharged to the land application areas. 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 in the land application areas. Monitoring of the land application areas shall include, at a minimum, the following:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Supplemental irrigation water applied to each LAA	Gallons	Meter Observation	Daily	Monthly
Rainfall <sup>1</sup>	Inches	Measurement	Daily	Monthly
Acreage applied <sup>2</sup>	Acres	Calculated	Daily	Monthly
Wastewater application rate	gal/acre/day	Calculated	Daily	Monthly
Total nitrogen loading rate <sup>3</sup>	lbs/acre/month	Calculated	Monthly	Monthly
Total dissolved solids loading rate from winery wastewater	lbs/acre/month	Calculated	Monthly	Monthly
BOD <sub>5</sub> loading rate <sup>4</sup>	lbs/acre/day	Calculated	Daily	Monthly
Tailwater runoff <sup>5</sup>	NA	Observation	Daily	Monthly

<sup>1</sup> Rainfall data shall be obtained from a public weather station nearest the facility that measures daily precipitation.

<sup>2</sup> Land Application Area(s) in use shall be identified by name or number and the acreage provided. If a portion of an area is used, then the acreage shall be estimated.

<sup>3</sup> Total nitrogen applied from all sources, including fertilizers and supplemental irrigation water if used.

<sup>4</sup> Calculate the daily application rate, based on the most recent BOD effluent results.

<sup>5</sup> When wastewater is being applied to the land application areas, the entire application area shall be inspected **daily** to identify any equipment malfunction or other circumstance that might allow irrigation runoff to leave the area and/or create ponding conditions that violate the Waste Discharge Requirements.

A log of these inspections shall be kept at the facility and be submitted with the monthly monitoring reports. If wastewater was not applied to the land application area, then the monthly monitoring reports shall so state.

### SOLIDS MONITORING

The Discharger shall monitor the solid waste generated and disposed of on a monthly basis. Solid waste monitoring only relates to winemaking/processing activities. The following shall be monitored and reported:

1. Amount of solids generated. Solids may include pomace, seeds, stems, diatomaceous earth, screening, and sump/clarifier solids, or other material.
2. Storage for all solids waste streams. Describe the location of storage and measures implemented to prevent leachate generation or control and disposal of any leachate

that is generated.

3. Disposal of all solid waste streams. Describe the disposal method (e.g. animal feed, land application, off-site composting, landfill, etc.), the amount disposed (tons), and the name of the hauling company.

## 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. Whether the new treatment system is in use and date of startup;
2. Results of flow, influent, effluent, land application area and solids monitoring;
3. Average daily flow and maximum daily flow based on daily total effluent flows for the calendar month;
4. The volume of wastewater transported offsite for disposal; the name and contact information for the hauler and the disposal facility; and copies of receipts for each load transported that clearly show the date, and volume received by the disposal facility;
5. 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;
6. Calculation of a) Flow-weighted effluent TDS concentration to date; b) Total nitrogen loading to each LAA to date; c) BOD mass loading for each LAA for each day that wastewater was applied; d) total annual wastewater flow to each LAA to date;
7. Copies of laboratory analytical report(s);
8. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program;
9. The amount of solids which have been hauled offsite and the location hauled to.

## **B. Annual Report**

In addition to the monthly reports, a stand-alone annual report shall be prepared. The Annual Report shall be submitted to the Central Valley Water Board by **1 February** each year. The Annual Report shall include the following:

1. Tabular and graphical summaries of all data collected during the year;
2. Tabular and graphical summaries of total loading rates for wastewater and supplemental irrigation water (hydraulic loading in gallons and inches), BOD, total nitrogen, and total dissolved solids;
3. Comparison of the total annual nitrogen mass loading in lb/ac/yr to published agronomic rates for the crop grown.
4. The effluent TDS concentration as an annual flow-weighted average and comparison to the effluent TDS limit of the WDRs;
5. The maximum daily flow and total annual wastewater flow (million gallons) and comparison to the flow limits of the WDRs;
6. 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);
7. An evaluation of the performance of the wastewater treatment system, as well as a forecast of the flows anticipated in the next year;
8. An evaluation of the integrity of the wastewater treatment and storage system;
9. 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
10. 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: \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer

\_\_\_\_\_  
(Date)

LF: 10/31/12