

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2012-XXXX
FOR
QUADY WINERY, INC.
MADERA COUNTY

This Monitoring and Reporting Program (MRP) is required pursuant to California Water Code (CWC) 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 Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. 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: the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer or in accordance with manufacturer instructions.

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.

If monitoring consistently shows no significant variation in magnitude of 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.

A glossary of terms used within this MRP is included on page 7.

EFFLUENT MONITORING

Effluent samples shall be collected just prior to discharge to the land application area. Effluent sampling shall be conducted weekly during the crush period (typically mid-August through October) and monthly the remainder of the year. Effluent monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Calculated ¹
Weekly/Monthly	pH	pH Units	Grab
Weekly/Monthly	EC	umhos/cm	Grab
Weekly/Monthly	TDS	mg/L	24-hour composite
Weekly/Monthly	FDS	mg/L	24-hour composite
Weekly/Monthly	BOD ₅	mg/L	24-hour composite
Weekly/Monthly	Nitrate as N	mg/L	24-hour composite
Weekly/Monthly	TKN	mg/L	24-hour composite
Weekly/Monthly	Total Nitrogen	mg/L	Calculated
Annually	General Minerals ²	mg/L	24-hour composite

1. The collection sump has a capacity of 1,100 gallons. The sump pump turns on automatically when its half full (550 gallons) and pumps the wastewater to the Land Application Area. The cycles are recorded and then the volume of the wastewater discharged to the Land Application Area is calculated based on the number of cycles.
2. Samples for general mineral analysis shall be collected once during the crush period that typically extends from mid-August through October of each year.

SOURCE WATER MONITORING

The Discharger shall collect samples from its supply and analyze them for the constituents shown in the following table.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Semi- Annually ¹	EC	umhos/cm	Grab
Semi- Annually ¹	Nitrate as N	mg/L	Grab
Semi- Annually ¹	TDS	mg/L	Grab
Semi- Annually ¹	TKN	mg/L	Grab
Semi- Annually ¹	Total Nitrogen (equals TKN + Nitrate as N)	mg/L	Calculated
Annually	General Minerals	mg/L	Grab

1. Semi-annually is twice a year, with samples collected in the first quarter (January through March) of the year and the third quarter (July through September) of each year.

LAND APPLICATION AREA MONITORING

The Discharger shall perform the following routine monitoring and loading calculations for the Land Application Area. In addition, the Discharger shall keep a log of routine monitoring observations (e.g., areas of ponding, broken hoses, odors and/or flies within the Land Application Area). Data shall be collected and presented in tabular format and shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	Application Area	Field Area/ Acreage	na
Daily	Wastewater Flow	Gallons	Calculated
Daily	Wastewater Loading	Inches/day	Calculated
Daily	Supplemental Irrigation	Gallons	Metered
Daily	Precipitation	Inches	Rain gage ¹
	BOD Loading Rate ²		
Daily	day of application	lbs/acre	Calculated
Daily	cycle average	lbs/acre-day	Calculated
	Nitrogen Loading		
Monthly	from wastewater ³	lbs/acre	Calculated
Monthly	from fertilizer	lbs/acre	Calculated
Annually	Cumulative Nitrogen Loading	lbs/acre-year	Calculated
Monthly	Salt Loading	lbs/acre	Calculated
Annually	Cumulative Salt Loading	lbs/acre-year	Calculated

1. National Weather Service data from the nearest weather station is acceptable.
2. Loading rates to be calculated using the applied volume of wastewater, applied acreage, and average of the three most recent concentrations for BOD. The BOD loading rate shall be divided by the #days between applications to determine cycle average.
3. Nitrogen and salt loading shall be calculated using the applied volume of wastewater, applied acreage, and average of the three most recent concentrations for total nitrogen and FDS.

REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report	1 May
Second Quarter Monitoring Report	1 August
Third Quarter Monitoring Report	1 November
Fourth Quarter Monitoring Report	1 February.

Results of annual monitoring shall be reported in the next quarterly report after the sampling has occurred.

A transmittal letter shall accompany each monitoring report. The transmittal letter shall discuss any exceedances that occurred during the reporting period and all actions taken or

planned for correcting exceedance, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

The following information is to be included in all monitoring reports, as well as report transmittal letters:

Quady Winery, Inc.

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Contact Information (telephone and e-mail)

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements.

At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

In addition to the details specified in Standard Provision C.3, 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.

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. Monitoring data or discussions submitted concerning WWTF performance must also be signed and certified by the owner of the Quady Winery. If the owner of the Winery is not in direct line of supervision of the laboratory function for a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

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. All Quarterly Monitoring Reports shall include the following:

Wastewater reporting:

1. The results of effluent monitoring specified on page 2.
2. For each month of the quarter, calculation of the maximum daily and monthly average daily discharge flow to the land application area.
3. For each month of the quarter, calculation of the average monthly total nitrogen concentration in the discharge to the land application area.

Source water reporting:

1. The results of source water monitoring (except general minerals) specified on page 2.

Land Application Area reporting:

1. For each Quarter, the areas of the land application area that received wastewater including the volume applied and the dates it was applied.

B. Fourth Quarter Monitoring Reports, in addition to above, shall include:

Wastewater treatment facility information:

1. The names and general responsibilities of all persons in charge of wastewater treatment and disposal.
2. The names and telephone numbers of persons to contact regarding the application of wastewater for emergency and routine situations.

Source Water reporting:

1. The results of annual source water monitoring for general minerals.

Land Application Area reporting

1. The results of reuse area monitoring specified on pages 3 through 4.
2. Water balances for the annual reporting period based on a calendar year and presented monthly in spreadsheet form. The water balances shall evaluate the following:
 - a. Monthly volume of wastewater and freshwater discharged to the land application area.
 - b. Area (in acres) of the land application area receiving discharges each month of wastewater and/or freshwater.
 - d. Monthly average ET_o (observed evapotranspiration) - Information sources include California Irrigation Management Information System (CIMIS) <http://www.cimis.water.ca.gov/>.

- e. Monthly crop uptake for the land application area (cite references for irrigation efficiencies and crop coefficients).
5. Annual BOD, nitrogen, and TDS loading calculations.

The Discharger shall implement the above monitoring program by 1 December 2012.

Ordered by: _____

PAMELA C. CREEDON, Executive Officer

(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CBOD	Carbonaceous BOD
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.
Daily	Samples shall be collected every day except weekends or holidays.
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.
Weekly	Samples shall be collected at least once per week.
Twice Monthly	Sample shall be collected at least twice per month during nonconsecutive weeks.
Monthly	Samples shall be collected at least once per month.
Bi Monthly	Samples shall be collected once every two (i.e., six times per year) during non-consecutive months.
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise approved, samples shall be collected in January, April, July, and October.
Semiannually	Samples shall be collected once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.
Annually	Samples shall be collected at least once per year; in October, unless another month is specified.
mg/L	Milligrams per liter
mL/L	Milliliters [of solids] per liter
µg/L	Micrograms per liter
µmhos/cm	Micromhos per centimeter
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
General Minerals	Analysis for General Minerals shall include at least the following:
	Alkalinity
	Bicarbonate
	Calcium
	Carbonate
	Chloride
	Hardness
	Magnesium
	Potassium
	Sodium
	Sulfate
	TDS
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.