

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 3/4/5 October 2012**

**Response to Written Comments for Tentative Waste Discharge Requirements,
Quady Winery, Inc.,
Madera County**

At a public hearing scheduled for 3/4/5 October 2012, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) will consider adoption of Waste Discharge Requirements for the discharge of winery wastewater from the Quady Winery (Winery or Discharger) near Madera, to an adjacent vineyard owned by the Winery. This document contains responses to written comments received from interested parties regarding the Tentative Waste Discharge Requirements (TWDRs), draft Monitoring and Reporting Program (MRP), and draft Information Sheet circulated on 3 December 2010. Written comments from interested parties were required by public notice to be received by the Central Valley Water Board by 10 August 2012 to receive full consideration.

Written comments were received from Andrew Quady, owner of Quady Winery, Inc.

The written comments are summarized below, followed by Central Valley Water Board staff responses.

QUADY

QUADY – TWDR, COMMENT 1: TWDR, page 1, Finding 1. The Discharger provides the following information to Finding 1. *“Quady Winery Inc. and/or Andrew and Laurel Quady have owned and operated Quady Winery since 1977. There are parcels which make up the 20 acre block. Andrew and Laurel Quady own 3 of them. Robert and Wendy Gonzalez own the northeast parcel, approx 4 acres . If accuracy is needed, the maps and text should be corrected since they seem to show the Quadys owning the entire 20 acres.*

RESPONSE: The TWDRs and associated documents have been modified to reflect the 1977 date of ownership. Finding 1 has been updated to reflect the correct year of ownership and the revised acreage. Attachment B has been updated to properly reflect property owned and operated by Quady Winery, Inc. Wastewater is applied only to property owned by the Winery

QUADY – TWDR, COMMENT 2: TWDR, page 5, Finding 24. The Discharger notes, that the former Oberti Olive facility brine ponds are situated east of the winery, not west as indicated in Finding 24.

RESPONSE: Finding 24 of the TWDRs and associated documents have been modified to reflect the position of the brine ponds with respect to the Winery.

QUADY – TWDR, COMMENT 3: TWDR, pages 7 and 8, Finding 39.a. The Discharger comments that the soil conditions are not uniform over the entire 10 acre vineyard and about 3.5 acres of the vineyard is poorly drained. The Discharger suggests that Finding 12 be modified to allow the discharge to only the southern 6.5 acres of the vineyard, which contain the soil with better drainage/permeability.

RESPONSE: The use of only 6.5 acres is acceptable because of the low loading rates for the proposed discharge. The loading estimates presented in Finding 17 indicate very low values (BOD at 27.5 pounds per acre per day and total nitrogen at 15.6 pounds per acre per year) and those values were estimated using very conservative concentrations (high) and assuming 10 acres of land was available. Using 6.5 acres, the estimated loading for BOD is 42 pounds per acre per day and total nitrogen loading is 24 pounds per acre per year. Finding 12 of the TWDR has been modified as follows. Additions are shown in bold, deletions are shown in strikeout.

12. *As discussed above, wastewater is used to flood irrigate ~~an the~~ adjacent 10-acre vineyard (Land Application Area), but ~~the Winery it~~ reports it only uses about two of the available 10 acres, as the wastewater infiltrates into the subsurface prior to it spreading out over the entire 10 acres due to the small volume and the high permeability of the underlying soils. **Additionally, the southern 6.5 acres of the vineyard contain soils that drain well, while the northern 3.5 acres contain soils that cause water to pond. Provision F. 10 of this Order requires the Discharger to submit a Wastewater Irrigation Management Plan that will detail its proposed methods to evenly apply its wastewater to the southern 6.5 acre Land Application Area.** The Winery and the ~~10-acre~~ Land Application Area are shown in [Attachment B](#), which is attached hereto and made part of this Order.*

Finding 17 of the TWDRs has been modified as follows to reflect the change in the acreage of the available land application area.

17 *The 342,000 gallons of wastewater generated in 2011 occurred during what the Winery described as a “short crop” year, and it only crushed about 675 tons of grapes in 2011, but it has the capacity to crush up to 825 tons a season. Quady estimates it would produce about 425,000 to 430,000 gallons of wastewater annually and is requesting a discharge limit of 450,000 of gallons of wastewater (includes about 50,000 gallons of rain water) per year for land application as irrigation water in its vineyard. Estimating the loading to the ~~10-6.5~~ **6.5** acres of available vineyard by using the anticipated highest flows produced during the crush, results in the discharge adding ~~27.5~~ **42** pounds per acre per day (*lbs/ac/day*) of BOD, ~~935~~ **1,441** pounds per acre per year (*lbs/ac/yr*) of TDS, and ~~15.624~~ **24** lbs/ac/yr of total nitrogen.*

QUADY – TWDR, COMMENT 4: TWDR, page 7, Finding 39.a. The Discharger questions the requirement that winery needs to filter solids from the waste stream and requests the wording be changed from “filtered” to “screened.”

RESPONSE: The Winery does screen solids from its wines prior to bottling as described in Finding 11. Those solids/screenings are used in its composting operation. The Discharger interpreted that additional filtering was required from the sump to the land application, which is not the case. Finding 39.a was modified as follows.

- a. *To reduce the organic load of its discharge, the Winery **filters screens** solids from the waste stream and per Provision F. 10, will implement best management practices (BMP) measures to evenly distribute the wastewater over the ~~10-acre~~ Land Application Area reducing the organic load to the Land Application Area and minimizing the potential for anoxic and reducing conditions in soil. These measures are expected to prevent odor and nuisance conditions and reduce the potential for the degradation of groundwater from organic loading;*

QUADY – TWDR, COMMENT 5: TWDR, page 8, Finding 39.b. The Winery questions the requirement of a cover crop to be grown in the vineyard rows.

RESPONSE: The Discharger allows a cover crop of pasture grasses to grow between the vineyard rows. The vineyard in combination with the pasture grasses will uptake more than 100 lbs/ac/yr of nitrogen, which is far more than is anticipated in the winery wastewater. With the application of wastewater at agronomic rates, the discharge is not expected to affect the underlying groundwater quality. The second sentence of Finding 39.b was modified as follows for clarity.

- b. *Nitrogen in the wastewater will be discharged to a vineyard with a cover crop (**pasture grasses**) that **combined** can utilize **over up to 100 lbs/ac/yr of nitrogen or more**.*

QUADY – TWDR, COMMENT 6: TWDR, page 9, Finding 42; Page 10, Finding 47.c, and page 16, Provision F.10. The Winery notes inconsistent use of different terms used for a required Wastewater Irrigation Management Plan noted in the Findings and the Provision.

RESPONSE: Findings 42.e, 47.c, and Provision F.10 were modified, and now all three require a “Wastewater Irrigation Management Plan.”

QUADY – TWDR, COMMENT 7: TWDR, page 11, Finding 53. The Winery notes that Finding 53 lists Hilmar Cheese as the facility that discharges the waste and requested it be changed to Quady Winery.

RESPONSE: The TWDR was modified to list Quady Winery, Inc., as the facility that discharges the waste.

QUADY – TWDR, COMMENT 8: TWDR, page 13, Discharge Specification C.12. The Winery points out that Discharge Specification C.12 requires it to cease irrigation within 24 hours of forecasted rainfall, or within 24 hours after any measureable rainfall event. The Winery states that it has a maximum rate of wastewater generation of about 3,000 gallons per day during the crush period (from mid-August to late October) and that there is little rain during this period. In its experience, the vineyard does not become saturated during this time period and Quady requests it be able to apply wastewater until it notes the vineyard becomes saturated.

RESPONSE: Central Valley Water Board staff note that the TWDRs contain Discharge Specifications C.5, C.8, and C.11 that state:

- Discharge Specification C.5 requires that the discharge shall remain within the permitted waste treatment/containment structures and Land Application Area at all times.
- Discharge Specification C.8 requires that any irrigation runoff shall be confined to the Land Application Area and shall not enter any surface water drainage course or storm water drainage system unless the runoff does not pose a public health threat and is authorized by the appropriate regulatory agencies.
- Discharge Specification C.11 requires that the Land Application Area shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties.

Given that Discharge Specifications C.5, C.8, and C.11 require control of the wastewater application, and Discharge Specification C.7 requires that hydraulic loading to the Land Application Area be at agronomic rates, the Order contains enough requirements to ensure that the discharge is controlled in a manner that precludes hydraulic overloading and site runoff. Therefore, Discharge Area Specification C.12 has been removed.

QUADY – TWDR, COMMENT 9: TWDR, page 13, Discharge Specification 13. Discharge Specification 13 states “*that the storage of pomace and/or diatomaceous earth on areas not equipped with means to prevent storm water infiltration, or a paved leachate collection system is prohibited.*” The Winery notes that pomace is composted in an unlined earthen area (mixed with green waste and manure) during the summer months, and added to the vineyards as a soil amendment each fall. The Winery notes that pomace is pressed and nearly dry upon placement into the composting area and they have never observed leachate generation in the composting area. As the composting operations are exempt from requiring a permit (Finding 11), the Winery is requesting that they be permitted to cover the compost pile with tarps, and requirement for a leachate collection system be waived.

RESPONSE: Due to the limited volume of compost generated (250 to 400 cubic yards) and that it is only present during the summer and fall months when rainfall is limited, covering the compost pile with tarps prior to potential rainfall events is an acceptable alternative. Discharge Specification C.13 was modified as follows:

*13 Storage of pomace and/or diatomaceous earth on areas not equipped with means to prevent storm water infiltration **must be covered prior to and during forecasted rainfall events to preclude leachate generation or a paved leachate collection system is prohibited.***