

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2004-0705

FOR
DELICATO VINEYARDS
WASTEWATER DISPOSAL SITE
SAN JOAQUIN COUNTY

This Order is issued to Delicato Vineyards (hereafter known as “Discharger”) and is based on provisions of California Water Code Section 13304 which authorize the Regional Water Quality Control Board, Central Valley Region (hereafter known as Regional Board) to issue a Cleanup and Abatement (C&A) Order.

The Executive Officer of the Regional Board finds, with respect to the Discharger’s acts, or failure to act, the following:

1. Waste Discharge Requirements (WDRs) Order No. 96-077 was adopted by the Regional Board on 22 March 1996 for Delicato Vineyard’s wastewater disposal site in Manteca, San Joaquin County. The WDRs address the wastewater discharge associated with winery production activity. The Monitoring and Reporting Program (MRP), which is part of the WDRs, was revised in 2001 to include the requirement to conduct groundwater monitoring.
2. The Discharger owns and operates the facility and is responsible for complying with this enforcement action.

Waste Generation and Discharge

3. The facility consists of approximately 100 acres of vineyards, administrative and wine production buildings, and two 10-acre wastewater application areas. Sanitary wastewater is discharged to several separate septic tank/leachfield systems.
4. Process wastewater consists primarily of wine processing wastewater and equipment washwater, mixed with grape skins, seeds, and stems. The strength of the wastewater may be highly variable depending on the season and operations being conducted at the winery.
5. On an annual basis, the facility generates approximately 100,000 gallons of process wastewater per average working day. The winery operates year-round, but the maximum wastewater discharge occurs during the crush system from September through November; during this period, flows can average 165,000 gallons per day.
6. Process wastewater is applied to two approximately 10-acre unlined checks, which are not cropped but contain naturally occurring grasses and weeds. The two application areas are referred to as the “southwest check” and the “northeast check”. Wastewater is applied by flooding the areas and is treated passively by the land and/or is taken up by the vegetative growth within the checks.

Soil and Groundwater Conditions

7. Site topography is flat and level. The site is underlain by alluvial fan deposits consisting of poorly sorted clay, silt, sand, and gravel.

8. The first encountered groundwater below the site ranges from approximately 30 to 40 feet below ground surface. Groundwater flow direction is generally to the north, with an average gradient of 0.002 ft/ft.
9. Three groundwater monitoring wells (MW-1, MW-2, and MW-3) were constructed during the spring of 2001. MW-1 is south of both disposal areas and is considered to be representative of background conditions. MW-2 is immediately north of the southwest check and MW-3 is immediately north of the northeast check. MW-2 and MW-3 are considered to be hydraulically downgradient of the process water disposal areas.
10. The groundwater monitoring data indicate that concentrations of salt-related constituents often associated with winery wastewater are elevated in the two downgradient monitoring wells, as compared to concentrations in the background monitoring well. Average total dissolved solids (TDS) concentrations in MW-2 and MW-3 for 2001 through 2003 were 2,178 mg/l and 1,763 mg/l respectively as opposed to 1,105 mg/l in background well MW-1. Average electrical conductivity (EC) concentrations in MW-2 and MW-3 for the same time period were 3,167 umhos/cm and 2,593 umhos/cm respectively as opposed to 1,587 umhos/cm in MW-1. The average calcium, sodium, magnesium, alkalinity, chloride, and sulfide concentrations in the downgradient wells were also elevated, ranging from two to six times higher than in the background well.

Enforcement History

11. On 15 September 2003, Regional Board staff issued a Notice of Violation (NOV) to the Discharger for violation of the Groundwater Limitations contained in WDRs Order No. 96-077. The NOV requested the preparation and submittal of a *Groundwater Degradation Evaluation Report* to confirm whether or not the discharge is degrading the underlying groundwater.
12. On 29 December 2003, the Discharger submitted a report titled *Report: Groundwater Degradation Evaluation Delicato Vineyards*. The report concluded that the wine processing combined with waste application practices are contributing to the degradation of groundwater quality in the vicinity of the waste application areas. The report also indicated that the Discharger was assessing its process chemical usage and attempting to reduce the use of chemicals that were impacting groundwater quality.
13. Regional Board staff has completed a review of this report and concur with the report conclusions. A C&A Order is appropriate to ensure that the Discharger takes appropriate actions in a timely manner to prevent further groundwater degradation.

Regulatory Considerations

14. The Regional Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) designates beneficial uses, includes water quality objectives to protect the beneficial uses, and includes implementation plans to implement the water quality objectives.
15. As a result of the events and activities described in this Order, the Discharger has caused or permitted waste to be discharged in such a manner that it has created, and continues to threaten to create, a condition of pollution or nuisance and potential public health threat. Water quality objectives in the Basin Plan include state drinking water standards by reference to Title 22

California Code of Regulations, Division 4, Chapter 15. As described in Findings 7 through 10, the discharges of waste have caused the groundwater to be degraded and exceed water quality objectives. Concentrations of waste greater than the water quality objective constitutes pollution as defined in California Water Code Section 13050.

16. Surface water discharge is to the San Joaquin River via Lone Tree Creek. The beneficial uses of the San Joaquin River as stated in the Basin Plan are municipal and domestic supply; agricultural supply; industrial process supply; hydropower generation; water contact recreation; non-contact recreation; warm freshwater habitat; cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; and wildlife habitat.
17. The beneficial uses of the underlying groundwater as stated in the Basin Plan are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
18. Section 13304(a) of the California Water Code provides that: “Any person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the water of the state, and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”
19. Section 13267(b) of the California Water Code states: “ 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.”
20. Technical reports are required to ensure compliance with this C&A Order and WDRs Order No. 96-077, and to ensure the protection of the public health and safety. The Discharger owns and operates the facility at which the subject waste is discharged.
21. The issuance of this Order is an enforcement action by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA), pursuant to Section 15321(a)(2), Title 14, California Code of Regulations.
22. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board (State Board) to review the action in accordance with Section 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions

are available at http://www.swrcb.ca.gov/water_laws/cawtrcde/wqpetition_instr.html and will also be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Sections 13304 and 13267 of the California Water Code, Delicato Vineyards shall cleanup and abate the condition of pollution or nuisance caused by discharge from the Delicato Vineyards facility, in accordance with the scope and schedule set forth below. Compliance with this requirement shall include, but not be limited to, the following measures:

1. Delicato Vineyards shall comply with all aspects of WDRs Order No. 96-077 and Revised MRP Order No 96-077, except for the Groundwater Limitation. The Discharger shall make all practicable efforts to comply with the Groundwater Limitation during the study period described in this Order, and at the end of the study period, shall submit a Report of Waste Discharge proposing such improvements that it will comply with the Limitation in the future.
2. By **1 August 2004**, Delicato Vineyards shall submit a *Wastewater Characterization and Treatment Evaluation Workplan* that provides a detailed proposal of the work which will be conducted to assess current conditions, estimate future conditions, and evaluate, identify, and plan the necessary wastewater system improvements. At a minimum, the Workplan shall include:
 - a. A *Wastewater Characterization Workplan* that describes a sampling program for specific waste streams (winery process water, equipment washwater, ion exchange, cooling water, water softening, and other discrete processes) in order to identify potential wastewater and salinity reduction, reuse, recycling, and treatment opportunities. The workplan shall detail the location at which samples will be collected, sampling frequency, and constituents to be analyzed.
 - b. A *Wastewater Treatment Evaluation Workplan* that describes the steps to be taken in order to evaluate wastewater application practices, application area cropping practices, and the vineyard soils and their ability to treat the wastewater to identify potential treatment problems, mitigation measures, and treatment improvement opportunities.
3. By **1 October 2005**, Delicato Vineyards shall submit a *Wastewater Characterization and Wastewater Treatment Evaluation Report* that will present the results of both the wastewater characterization and the treatment system evaluation based on data from the wastewater generating processes for an entire year period. The *wastewater characterization* portion of this study should describe site-specific wastewater characteristics and assess seasonal variations of the processes that contribute to the wastewater stream, including the winery process, equipment washwater, ion exchange, water softening, and cooling water discharges.

The *wastewater treatment* portion of the study should evaluate the wastewater application practices, application area cropping practices, and hydraulic characteristics and other qualities of the vineyard soils in order to identify potential treatment problems and mitigation measures. This portion of the report should also compare the results of the wastewater characterization to the results of the treatment evaluation, and identify and describe potential wastewater and salinity reduction, reuse, recycling, and treatment opportunities to prevent future degradation of groundwater below the site.

4. By **1 February 2006**, Delicato Vineyards shall submit a Report of Waste Discharge that includes a *Wastewater System Improvement Plan and Final System Design*. The *Wastewater System Improvement Plan* shall examine, compare, and evaluate the wastewater and salinity reduction, reuse, recycling and treatment opportunities identified and described in Item No. 3 above, and shall identify best management practices and best practicable treatment and control measures to be implemented. The report shall also provide the rationale for the improvement measures chosen. The *Final System Design* shall present the design for wastewater system improvements that will ensure groundwater beneath the site is not degraded. The Report of Waste Discharge shall include a proposed schedule for implementation.
5. Beginning with the **Second Quarter 2004**, Delicato Vineyards shall submit quarterly progress reports describing the work accomplished to date to comply with this Order. The progress reports are due the first day of the second month following the end of the quarter (i.e., by **1 February, 1 May, 1 August, and 1 November**). The Second Quarter 2004 report is due by 1 August 2004.

In addition to the above, the Discharger shall comply with all applicable provisions of the California Water Code that are not specifically referred to in this Order. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all technical reports shall be prepared by, or under the supervision of, a California Registered Engineer or Registered Geologist and signed by the registered professional.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Failure to comply with this Order may result in the assessment of an Administrative Civil Liability up to \$1,000 or up to \$10,000 per day of violation, depending on the violation, pursuant to the California Water Code, including sections 13268, 13271, and 13350. The Regional Board reserves its right to take any enforcement actions authorized by law.

This Order is effective upon the date of signature.

THOMAS R. PINKOS, Executive Officer

(Date)