

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2006-0038

CEASE AND DESIST ORDER
REQUIRING
GUENOC WINERY, INC.
GUENOC WINERY
LAKE COUNTY

TO CEASE AND DESIST
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The Regional Water Quality Control Board, Central Valley Region, (hereafter referred to as “Regional Board”) finds that:

1. Guenoc Winery, Inc. (hereafter known as Discharger) owns and operates the Guenoc Winery in Lake County. Treated process wastewater is discharged to unlined ponds for storage prior to disposal on pasture.

Violations of Previous Waste Discharge Requirements

2. Waste Discharge Requirements (WDRs) Order No. R5-2003-0175, adopted by the Regional Board on 5 December 2003, prescribes requirements for the discharge of winery process wastewater to a land application area. The WDRs allowed the discharge of up to 11,000 gallons per day (gpd) of winery wastewater to a series of five unlined evaporation/percolation ponds. From the ponds, the wastewater could be discharged to approximately seven acres of pastureland (DDA-1) or to 54 acres of pastureland (DDA-2).
3. WDRs Order No. R5-2003-0175 states that the discharge from the ponds and DDA-1 has polluted the underlying groundwater with salts and therefore the discharge is classified as “designated waste”. The Order required the Discharger to submit a number of reports and complete improvements such that by 1 November 2005 the Discharger would no longer be discharging designated waste to the ponds or to DDA-1. The Discharger has not complied with the schedule in the WDRs.
4. The WDRs also required that the Discharger submit an Engineering Feasibility Study and Corrective Action Plan to address cleanup of the polluted groundwater. While the Discharger submitted a document with this title, it did not meet the requirements of the WDRs as it did not contain the required information and stated that there was no need to clean up the polluted groundwater. In addition, the Discharger never made the improvements to DDA-2 to allow disposal of wastewater to that pasture, thereby exacerbating the groundwater impacts to DDA-1.
5. Review of the monthly self-monitoring reports submitted between January 2004 and December 2005 indicates that the Discharger has routinely violated the Discharge Specifications No. B.4 and B.6 of WDRs Order No. R5-2003-0175 as described below:

- a. Discharge Specification No. B.4 of the WDRs states: *“As a means of discerning compliance with Discharge Specification No. 3, the dissolved oxygen content in the upper zone (one foot) of all wastewater storage ponds shall not be less than 1.0 mg/L.”* This specification was violated during 41 weeks in 2004 and 11 weeks in 2005.
- b. Discharge Specification No B.6 of the WDRs states: *“The wastewater treatment and storage ponds shall not have a pH of less than 6.5 or greater than 8.4.”* This specification was violated during 15 weeks in 2004 and 30 weeks in 2005.
- c. In September 2004, the Discharger violated Effluent Limitation C.1 of the WDRs which states: *“Wastewater discharged to the DDAs shall not exceed the following monthly average effluent limits, or such concentrations as the Discharger determines necessary to ensure compliance with the Groundwater Limitations:”*

<u>Constituent</u>	<u>Units</u>	<u>Concentration</u>
Biological Oxygen Demand (BOD)	mg/L	500
Total Dissolved Solids (TDS)	mg/L	2,000
Total Nitrogen	mg/L	120

BOD and TDS concentrations in the ponds during this period were 1,500 mg/L and 2,300 mg/L, respectively.

6. As described in Findings No. 38 through 40 of WDRs Order No. R5-2006-0037, a comparison of the groundwater monitoring results from four wells (MW-1 through MW-4) located around the wastewater ponds and two wells (MW-5 and MW-6) located downgradient of DDA-1 versus (a) the background well (MW-7) and (b) the applicable water quality limits shows that the discharge of waste has not just degraded groundwater but has also polluted groundwater. Groundwater has been polluted by TDS, specific conductance, magnesium, sodium, chloride, nitrate, sulfate, and iron. This is a violation of the Groundwater Limitation in WDR Order No. R5-2003-0175.

Revised Waste Discharge Requirements

7. The Discharger submitted a revised Report of Waste Discharge (RWD) on 1 December 2004 with supplemental information submitted in June, July, and December 2005, and April 2006. The RWD states that the wastewater will be treated in a Bioreactor followed by discharge to a new Title 27 lined pond (Pond A), with disposal on 54 acres of pasture. The Regional Board subsequently adopted WDRs Order No. R5-2006-0037 on 5 May 2006.
8. Background groundwater quality and the design concentration ranges for the treated wastewater exiting the proposed Bioreactor are presented in Finding Nos. 38 and 18, respectively, of WDRs Order No. R5-2006-0037. Selected constituents are summarized in the table below.

<u>Constituents</u>	<u>Units</u>	<u>Interim background Groundwater Quality</u> ¹	<u>Proposed Bioreactor Effluent Concentration</u>
pH	pH units	7.47 – 8.0	6.8 - 7.2
Total Dissolved Solids	mg/L	300 - 490	700 - 900
Chloride	mg/L	11 - 16	14 - 16

¹ Interim background groundwater quality concentration range from monitoring well MW-7. Data collected during four consecutive groundwater sampling events (March, June, September, and December 2005). Final background quality will be determined after eight quarterly sampling events.

- Monitoring data show that the depth of groundwater below the bottom of the existing five wastewater ponds varies seasonally. However, at certain times of the year groundwater rises up to within the ponds.

Waste Character and Waste Management Unit Classification

- Water Code Section 13173 defines “designated waste” to include “[n]on hazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions at a waste management unit, could be released in concentrations that exceed applicable water quality objectives or that could reasonably be expected to affect beneficial uses of waters of the state as contained in the appropriate state water quality control plan.”
- Based on the waste characterization data summarized in Finding Nos. 10, 11, and 18 of WDRs Order No. R5-2006-0037 and Finding No. 6 of this Order, several of the individual waste streams and the combined waste stream from the Bioreactor to the five ponds are classified as designated waste due to the concentration of total dissolved solids and individual constituents that exceed limits implementing applicable water quality objectives. The Discharger plans to segregate the water softener brine and treat the remaining wastewater. While such changes will reduce the salinity of the waste stream, it will not be reduced enough to prevent designated waste from being discharged to the proposed new pond.
- The five unlined ponds are currently used to treat and dispose of liquid designated waste. However, pursuant to Title 27 California Code of Regulations Section 20210, such waste can only be discharged to a Class I or Class II surface impoundment equipped with engineered lining and a leachate collection and recovery system. The Discharger has proposed to abandon in place the five existing ponds and construct a new pond that will comply with Title 27 requirements. This proposal is based on the effluent concentration of the wastewater, the depth to groundwater, and the quality of the background groundwater. The continued discharge to the unlined wastewater ponds is a violation of WDRs Order No. R5-2006-0037. However, the Discharger cannot immediately cease the discharge of designated waste in violation of WDRs Order No. R5-2006-0037, therefore it is appropriate to issue this companion Cease and Desist Order to allow a reasonable time schedule for the Discharger to achieve compliance.

13. Data from monitoring wells MW-2 through MW-7 show that groundwater exceeds the Groundwater Limitations, and is in conflict with State Water Board Resolution No. 68-16. The quality of wastewater discharged to Pond Nos. 1 through 5 significantly exceeds water quality objectives for certain waste constituents. As found in the previous WDRs and reiterated in WDRs Order No. R5-2006-0037, the data demonstrate that waste discharge to ponds has caused violations of groundwater quality objectives. In 2003, the discharge to the ponds was classified as a discharge of designated waste, and the Discharger was provided with a time schedule to line the pond per Title 27 or reduce the concentrations of the waste constituents entering the ponds such that designated waste is no longer discharged. While the Discharger has submitted a RWD proposing treatment of the waste, the resulting effluent is still considered designated waste, based on the effluent concentration of the wastewater, the depth to groundwater, and the quality of the background groundwater. As explained in Finding No. 68 of WDRs Order No. R5-2006-0037, the discharge does not qualify for exemption from the requirements of Title 27. Therefore, the new Pond A must be regulated under Title 27 of the CCR.

Regulatory Considerations

14. As a result of the events and activities described in WDRs Order No. R5-2006-0037 and this Order, the Regional Board finds that the Discharger has discharged waste in violation of the previous WDRs, and will not be able to fully comply with WDRs Order No. R5-2006-0037 until certain technical studies and modifications to the wastewater treatment, storage and disposal system are completed. It is appropriate to impose a reasonable schedule for compliance with all requirements of WDRs Order No. R5-2006-0037.
15. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition* revised September 2004 (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to §13263(a) of the California Water Code (CWC), waste discharge requirements must implement the Basin Plan.
16. Surface water drainage is to Bucksnot Creek, which is a tributary to Putah Creek, which is tributary to Lake Berryessa.
17. The Basin Plan designates the beneficial uses of Lake Berryessa as municipal and domestic supply; agricultural supply; power generation; water contact recreation; noncontact water recreation; warm freshwater habitat; cold freshwater habitat; spawning, reproduction and/or early development of warm freshwater aquatic organisms; and wildlife habitat.
18. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.
19. Section 13301 of the California Water Code states in part: "*When a Regional Board finds that a discharge of waste is taking place or threatening to take place in violation of the requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue*

an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”

20. Section 13304(a) of the California Water Code states in part: *“Any person who has discharged or discharges waste into waters of this state in violation of any waste discharge requirement 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 waters 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 the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts...”*
21. 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.”*
22. The required technical reports and modifications to the wastewater treatment system are necessary to assure compliance with WDRs Order No. R5-2006-0037 and this Order, and to assure protection of public health and safety. The Discharger owns and operates the facility that discharges the waste subject to this Order.
23. 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, pursuant to Section 15321(a)(2), Title 14, California Code of Regulations.
24. On 5 May 2006, in Rancho Cordova, California, after due notice to the Discharger and all other affected persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order.
25. Any person affected by this action of the Regional Board may petition the State Water Resources Control 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 Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, CA, 95812-0100, within 30

days of the date on which the Regional Board action took place. Copies of the law and regulations applicable to filing petitions are available at http://www.waterboards.ca.gov/water_laws/index.html and also will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to Sections 13301 and 13267 of the California Water Code, Guenoc Winery, Inc. its agents, successors, and assigns, shall in accordance with the following tasks and time schedule, implement the following measures to ensure long-term compliance with WDRs Order No. R5-2006-0037 or any superceding permits or orders issued by the Regional Board.

Any person signing a document submitted under this Order shall make the following certification:

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my knowledge and on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

1. **Effective immediately**, the Discharger shall comply with all requirements set forth in WDRs Order No. R5-2006-0037, with the exception of Discharge Specification B.8, Solids/Sludge Disposal Requirement E.1, the Effluent Limitations, and the Groundwater Limitations.

Compliance with Discharge Specification B.8, Solids/Sludge Disposal Requirement E.1, and the Effluent Limitations shall commence no later than **1 October 2006**. Compliance with the Groundwater Limitations shall commence no later than **1 July 2007**.

2. By **1 July 2006**, the Discharger shall submit a *Report of Waste Discharge (RWD)* containing a design for a new pond that complies with Title 27 and a timeline that shows that the pond will meet the prescriptive standards and performance goals of Title 27 no later than **1 July 2007**. The RWD shall contain all applicable information required under Section 21710 through 21760 of Title 27, shall demonstrate that the pond will be constructed in accordance with applicable sections 20200 through 20375 of Title 27, and shall demonstrate how the pond will be monitored in accordance with Section 20380 through 20430 of Title 27. In addition, the RWD shall contain a final detailed water balance showing that the proposed pond will be large enough to meet the storage and disposal requirements, as well as be designed per the general description contained in Findings No. 19-28 of WDRs Order No. R5-2006-0037.
3. The discharge of wastewater to DDA-1 after **1 September 2006** is prohibited.
4. Effective **1 October 2006** the Bioreactor shall be installed and fully functional. From this date forward, wastewater shall be treated in the Bioreactor prior to being discharged to any wastewater pond.
5. Effective **1 October 2006**, wastewater discharged to the pond and to DDA-2 shall not exceed the monthly average effluent limits, or any lower limits necessary to comply with the Groundwater Limitations, as listed in WDRs Order No. R5-2006-0037.

6. By **1 December 2006**, the Discharger shall submit a report certifying that the Bioreactor treatment system has been constructed in accordance with this Order, and in particular, with Findings Nos. 14 through 18 of WDRs Order No. R5-2006-0037. The report shall show that the system has been constructed, is fully operational, and as of 1 October 2006 was treating wastewater to the levels prescribed by the Effluent Limitations of WDRs Order No. R5-2006-0037. The report shall also:
 - a. Certify that the waste is no longer being discharged to DDA-1;
 - b. Document that a flow meter has been installed to measure winery process water flows into the pond;
 - c. Document that the water softener backwash brine has been removed from the waste stream entering the Bioreactor, is stored in a manner that will not impact the underlying groundwater, and will be periodically hauled off-site for disposal at an appropriately permitted facility.
7. Groundwater adversely affected by past and ongoing wastewater discharge shall be restored to a quality determined to be consistent with State Board Resolution No. 92-49 and with State Board Resolution No. 68-16, as determined by the Regional Board after receipt of appropriate technical investigations and reports. Unless present facts are altered, groundwater shall be restored to comply with the background groundwater quality determined as a result of the report due by Provision G.1.f of WDRs Order No. R5-2006-0037.
8. The Discharger shall submit the following technical reports by the required dates to address the groundwater degradation and pollution:
 - i. By **1 November 2006**, an *Engineering Feasibility Study* (EFS) that assesses the feasibility and effectiveness of various remedial options to return impacted groundwater to background levels as measured in the background monitoring well. For the purpose of the EFS, "background" shall be as defined in Finding No. 42 of the WDRs. The report shall contain information listed in Attachment A of this Order.
 - ii. By **1 April 2007**, a *Corrective Action Plan* (CAP) to implement the best remedy selected from the EFS to return impacted groundwater to background levels as measured in background monitoring well(s). Background shall be as defined in the *Background Groundwater Quality Determination Report* required by Provision G.1.f of WDRs Order No. R5-2006-0037. The report shall contain information listed in Attachment B of this Order.
 - iii. By **15 September 2007**, a report certifying that the CAP has been implemented (i.e., cleanup measures have begun) in compliance with this Order.
9. Effective **1 July 2007**, the discharge of designated waste to any wastewater pond that is neither exempt from Title 27 nor constructed to comply with the prescriptive standards and performance

goals of Title 27 is prohibited. A report certifying compliance with this provision shall be submitted by **1 August 2007**.

10. **Beginning 1 August 2006**, and by the first day of the second month following each calendar quarter (**i.e., by 1 February, 1 May, 1 August, and 1 November each year**), the Discharger shall submit a progress report describing the work completed to date regarding each of the reporting requirements described above.

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.

All technical reports required herein 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. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

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, 13350, and 13385. The Regional Board reserves its right to take any enforcement actions authorized by law.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 5 May 2006.

PAMELA C. CREEDON, Executive Officer

Attachment A: Items to be Included in an Engineering Feasibility Study

Attachment B: Items to be Included in a Corrective Action Plan

ATTACHMENT A

ITEMS TO BE INCLUDED IN AN ENGINEERING FEASIBILITY STUDY CEASE AND DESIST ORDER NO. R5-2006-0038 GUENOC WINERY, INC. GUENOC WINERY LAKE COUNTY

The outline below is a minimum requirement for items to be included and discussed in the text of all feasibility studies/remedial option evaluation reports submitted to the Board. Reports must be signed by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the state of California.

- I. Purpose of Feasibility Study

- II. Background
 - A. Description of Facility
 - B. Site History
 - 1. Years of Operation
 - 2. Chemical Use
 - 3. Chemical Releases (Potential and Documented)
 - C. Geology
 - 1. Regional
 - 2. Local, soil type, lithology, lateral extent of lithologic units
 - D. Hydrogeology
 - 1. Aquifers, Aquitards, Perched Aquifers
 - 2. Groundwater flow rates, directions, recharge, discharge
 - 3. Groundwater Use
 - 4. Extraction and injection wells affect on groundwater flow
 - E. Surface Water
 - 1. Losing or gaining streams, ponds etc.
 - 2. Hydraulic connection with aquifers
 - F. Local Land Use
 - G. Previous Investigation and Remedial Actions

- II. Nature and Extent of Contamination
 - A. Contaminants in Soils
 - 1. Types and Concentrations
 - 2. Lateral and Vertical Extent

- B. Pollutants in Groundwater
 - 1. Types and Concentrations
 - 2. Lateral and Vertical Extent (including Perched Zones)
- III. Contaminant Fate and Transport
 - A. Contaminant Properties
 - 1. Mobility
 - 2. Toxicity
 - 3. Half-life
 - 4. Chemical and biological degradation
 - B. Contaminant Transport based on Soil and Aquifer Properties
- IV. Remedial Action Objectives
- V. Description of Remedial Action Alternatives – at a minimum, 3 alternatives must be considered
 - A. Alternative that meets background levels
 - B. Alternative that meets water quality objectives
 - C. Alternative that meets levels between background and water quality objectives
- VI. Evaluation of Remedial Action Alternatives
 - A. Overall Protectiveness of Human Health and the Environment
 - B. Compliance with Laws and Regulations
 - C. Long Term Effectiveness and Permanence
 - D. Reduction of Toxicity, Mobility, and Volume
 - E. Short Term Effectiveness
 - F. Implementability
 - G. Cost
 - F. State and Community Acceptance
- VII. Potential Impacts of Remedial Actions
- VIII. Estimated Project Schedule for Each Alternative
- IX. Preferred Alternative

ATTACHMENT B

ITEMS TO BE INCLUDED IN A CORRECTIVE ACTION PLAN CEASE AND DESIST ORDER NO. R5-2006-0038 GUENOC WINERY, INC. GUENOC WINERY LAKE COUNTY

The outline below is a minimum requirement for items to be included and discussed in the text of all cleanup plans submitted to the Regional Board. All reports must be signed and stamped by a registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California. Other pertinent information specific to each individual investigation also should be included.

I. INTRODUCTION

A. Site Assessment and characteristics

Site Background

Site description and location

Site history

Historic and current operations conducted at the site correlated to site contamination

Existing and planned use of the site

Present and historic chemical usage and handling procedures

Site geology and hydrogeology

Condition of surface and/or subsurface soil

All previous investigations with reference to relevant documents

B. Nature and Extent of Soil and Groundwater Contamination

1. Constituents and concentrations, including background concentrations

2. Lateral and vertical extent

3. Site maps to show above, including locations of any groundwater monitoring wells relative to soil and groundwater contamination

II. SUMMARY OF SELECTED REMEDIATION ALTERNATIVE

Discussion of selected remedial alternative

Discussion of implementation of remedial alternative

Summary of field activities

Summary of bench-scale testing

Summary of aquifer testing

Remedial investigation results

Summary of remedial goals

Compliance with Federal and State regulations, if applicable

III. TREATMENT SYSTEM DESIGN AND IMPLEMENTATION

Conceptual Model/Remedial Design

Overview

Equipment selection and operation

System schematics (layout, instrumentation, and controls)

- Treatment processes
- Construction activities and utility requirements
- Operation, maintenance and performance monitoring
- Start-up sampling and performance monitoring
- Sampling and analysis plan to demonstrate system effectiveness, performance optimization, and long-term operation with respect to achieving cleanup goals
- Potential for off-site migration
- Emission and discharge controls
- Handling and disposal procedures
- Quality assurance/quality control plan

IV. CLOSURE AND POST-CLOSURE MONITORING

- Cleanup Strategy
- Field sampling plan for closure and post-closure monitoring
- Long-term operation and maintenance of remedial action measures, if any are needed

V. TIME SCHEDULE FOR IMPLEMENTATION