

**Regional Water Quality Control Board
Central Valley Region
Board Meeting –5/6 June 2014**

**Response to Written Comments for Modern Development Company A Limited Partnership dba
Bianchi Vineyards
Emerald Glen Winery
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 5/6 June 2014, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board), will consider adoption of Waste Discharge Requirements (WDRs) for discharge from the Modern Development Company A Limited Partnership dba Bianchi Vineyards (hereafter Discharger or Bianchi) Emerald Glen Winery (Winery). This document contains responses to written comments received from interested parties regarding the tentative WDRs (TWDRs) initially circulated on 20 March 2014 and a corrected cover letter issued 21 March 2014. Written comments from interested parties were required by public notice to be received by the Central Valley Water Board by 21 April 2014 to receive full consideration. Only Bianchi submitted comments.

Written comments from interested parties are summarized below, followed by the responses of Central Valley Water Board staff. Central Valley Water Board staff also made some minor changes to the TWDRs to improve clarity and fix typographical errors. A description of the more notable changes follows the responses to Bianchi's comments.

BIANCHI COMMENTS

BIANCHI – COMMENT No. 1: Bianchi comments that the directive to prepare a nitrogen balance as part of the Wastewater and Nutrient Management Plan required by Provision G.13 of the TWDRs is unnecessary given the low nitrogen loading relative to crop uptake.

RESPONSE: No changes have been made to the TWDRs in this regard. As described in the TWDRs, the nitrogen uptake by crops in the land application areas (LAAs) is expected to exceed loading rates, minimizing the potential for groundwater degradation with nitrate. The Discharger will likely have to fertilize the vines to meet crop nitrogen requirements. There is also conflicting information in the record regarding the volumes and types of soil amendments applied to the vineyard. The Wastewater and Nutrient Management Plan required by Provision G.13 is appropriate to avoid excessive application of nitrogen and other nutrients. The Discharger will be required to monitor the soil, well water, and wastewater for nitrogen constituents. The nitrogen balance calculations will not add significantly to the cost to prepare the report.

BIANCHI – COMMENT No. 2: The Discharger states that it does not know whether a forecasted storm will actually occur. It requests that Land Application Area Specification D.6 of the TWDRs be changed from, "Discharge to the LAA shall not be performed within 24 hours of a storm event of measurable precipitation or when soils become saturated" to "Discharge to the LAA shall not be performed during a storm event, within 24 hours after a storm event of measurable precipitation, or when soils become saturated."

RESPONSE: The requested change has been made.

BIANCHI – COMMENT No. 3: Bianchi requests that Land Application Area Specification D.9 of the TWDRs be changed from, "Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water." to "Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to intentionally store recycled water."

RESPONSE: No changes to the TWDRs have been made regarding this issue. Land Application Area Specification D.9 is standard language found in most WDRs for discharges to land. It is intended to address the potential for breeding mosquitoes in standing wastewater to cause nuisance conditions and public health issues. Water Code section 13263 requires the Central Valley Water Board to take into consideration the need to prevent nuisance when preparing waste discharge requirements. Whether storing wastewater in low-pressure or unpressurized pipelines and ditches is intentional or not, the Central Valley Water Board is obligated to prohibit creation of nuisance conditions, including breeding of mosquitoes in the wastewater distribution system.

BIANCHI – COMMENT No. 4: Bianchi requests that Land Application Area Specification D.10 of the TWDRs be changed from, "Irrigation of the LAAs shall occur only when appropriately trained personnel are on duty" to "Irrigation of the LAAs shall occur only when appropriately trained personnel are available." The current language suggests that operating personnel cannot clock out to take a break during the discharge, which could last more than 6 hours.

RESPONSE: Land Application Area Specification D.10 has been changed to address the comment as follows: "Irrigation of the LAA shall occur only when appropriately trained personnel are in responsible charge of the operation."

BIANCHI – COMMENT No. 5: Bianchi comments that Land Application Area Specifications D.6 and D.13 are redundant.

RESPONSE: Land Application Area Specification D.13 has been removed.

BIANCHI – COMMENT No. 6: Bianchi comments that solids Disposal Specification F.5 requires at least 90 days advance written notice to the Executive Officer of changes to solids use or disposal practices, which does not allow sufficient flexibility for emergency solids disposal alternatives. Add the following statement following Solids Disposal Specification F.5: "In the event of equipment failure or similar emergency, Bianchi Vineyards personnel will notify the Board of any temporary changes to solid use or disposal as soon as possible."

RESPONSE: The requested changes have not been made. Solids generated at the Plant may have potential to release waste constituents in concentrations that could adversely affect the beneficial uses of groundwater, if used or disposed of improperly. Solids stockpiled inappropriately can also lead to creation of nuisance conditions (e.g., attract vectors). A time period of 90 days for Executive Officer review prior to making proposed changes to solids use or disposal is appropriate.

BIANCHI – COMMENT No. 7: Bianchi comments that Provision G.3 requires engineering and geologic evaluations and judgments to be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to required activities, in accordance with California Business and Professional Code sections 6735, 7835, and 7835.1. Many of the reports required by the TWDRs are agronomic or soil science reports and should be prepared by a Certified Professional Agronomist or Soil Scientist rather than an engineer or geologist.

RESPONSE: No changes have been made to the TWDRs in this regard. The language in Provision G.3 is sufficiently flexible to allow qualified professional soil scientists and/or agronomists to perform aspects of the required work, as appropriate.

BIANCHI – COMMENT No. 8: Bianchi comments that Fourth Quarter Land Application Area Reporting Requirement B.1 of the tentative Monitoring and Reporting Program requires submittal of, “The type of crop(s) grown, planting and harvest dates, and the quantified nitrogen and fixed dissolved solids uptakes including potassium (as estimated by technical references or, preferably, determined by representative plant tissue analysis).” The TWDRs do not specify a method for determination of fixed dissolved solids uptake. Change the Reporting Requirement to, “The type of crop(s) grown, planting and harvest dates, and the crop nutrient uptake, including quantified nitrogen and potassium (as estimated by technical references or, preferably, determined by representative plant tissue analysis).”

RESPONSE: Annual fixed dissolved solids loading is the mass of inorganic dissolved solids applied to the LAA as irrigation water (irrigation well water blended with wastewater) combined with the contribution of inorganic salts (readily dissolved upon irrigation) from soil amendments. The reference to “fixed dissolved solids uptake” by crops is intended to represent the mass of the inorganic dissolved solids that is taken up by crops, including macronutrients, micronutrients, and other ions (e.g., sodium) known to be taken up by the crops. While the primary constituents of concern for which Bianchi depends on crop uptake for removal are nitrogen and potassium, an estimation of the effects of crop uptake on the salt balance at the LAA is worth the little effort required to perform the calculations. Monitoring and Reporting Program has been changed to include a definition of “fixed dissolved solids uptake” for the purposes of the TWDRs.

BIANCHI – COMMENT No. 9: Bianchi states:

“In general, we question the utility of including Cation Exchange Capacity and Buffer pH in Orders pertaining to San Joaquin Valley soils. Lime equivalents is a better indicator of buffering capacity than CEC. Buffer pH as defined in the [Plant, Soil and Water Reference Methods for the Western Region] only applies to soils with less than 5.5 pH. Buffer pH, or lime requirement, is useful for estimating the amount of lime required to restore buffering capacity.

“The [Plant, Soil and Water Reference Methods for the Western Region] has alternative methods for reporting cations in soils above a 5.5 pH. Ammonium acetate extractable cations are applicable for evaluating plant nutrient availability, and are appropriately expressed as mg/kg or meq/100 g. Soluble cations extracted from a saturated paste are appropriate for evaluating soil salinity and sodicity, and are expressed in milliequivalents/liter (meq/L).”

RESPONSE: The Soils Monitoring section of the tentative Monitoring and Reporting Program R5-2014-##### has been changed to better reflect monitoring needs associated with the site-specific conditions. Given the limited anticipated organic loading to the LAAs and the coarse-grained soil with near-neutral pH, the cation exchange capacity (CEC) is not expected to change significantly over time and the pH is not expected to drop below 7.0. The tentative Monitoring and Reporting Program has been changed to remove the requirement to monitor soil CEC and Buffer pH, as requested. Electrical conductivity (EC) of the saturated paste extract has been added to monitor changes in soil salinity.

NOTABLE CENTRAL VALLEY WATER BOARD STAFF CHANGES

CENTRAL VALLEY WATER BOARD - CHANGE No. 1: Central Valley Water Board staff removed Discharge Specification C.8 regarding pond dissolved oxygen, as the TWDRs do not authorize discharges to ponds.

CENTRAL VALLEY WATER BOARD - CHANGE No. 2: Central Valley Water Board staff added the fixed dissolved solids (FDS) limit below to the end of the Discharge Specification section as Discharge Specification C.9. The addition is consistent with TWDRs Finding 43.a.

“The inorganic fraction of TDS of the discharge shall not exceed the TDS of the water supply by more than 330 mg/L.”