

## Soria, Denise@Waterboards

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**From:** Jo Anne Kipps  
**Sent:** Sunday, June 15, 2014 2:18 PM  
**To:** Soria, Denise@Waterboards  
**Cc:** Harvey, Dale@Waterboards  
**Subject:** Comments on The Wine Group LLC, Franzia Winery Sanger (please redact my email address from public view)

15 June 2014

This email transmits my comments on the Tentative Waste Discharge Requirements Order (TWDRs) and Tentative Time Schedule Order (TTSO) for The Wine Group LLC, Franzia Sanger Winery, in Fresno County. I am a Fresno County resident and California registered civil engineer with experience in evaluating the impact to soil and groundwater from discharges to land of food processing and winery wastewaters for treatment and disposal.

The TWDRs propose to rescind and replace WDRs Order 92-120, and document a 'textbook case' of groundwater pollution caused by the discharge of high-strength winery wastewater. If the discharge of winery wastewater to the existing 150-acre Land Application Area (LAA) was initiated before 1992, then the TWDRs should identify when the discharge was initiated as part of its characterization of the discharge and its impact to groundwater.

According to the TWDRs, the decades-long discharge has organically overloaded groundwater to the extent that it contains iron, manganese, and arsenic in concentrations exceeding water quality objectives established in the Basin Plan to protect domestic and municipal beneficial uses. There are several residences in the immediate vicinity of the 150-acre LAA visible via Google Earth. These residences presumably rely on groundwater for domestic use. Because of the apparent severity of pollution caused by the discharge and threat to public health, the Discharger should be required to: (1) expand groundwater monitoring efforts to delineate the vertical and horizontal extent of groundwater degraded by iron, manganese, and arsenic (as well as other relevant constituents of concern); (2) perform a survey of domestic wells potentially impacted by the discharge; and (3) monitor potentially impacted domestic wells for iron, manganese, and arsenic (and other constituents of concern). Staff will likely respond to this recommendation by stating the Discharger could be required to perform these tasks pursuant to a cleanup and abatement order issued after the Regional Board adopts the TWDRs. However, the arsenic pollution caused by the discharge poses a serious threat to public health that should be addressed forthwith. While not the ideal regulatory vehicle to initiate work on these tasks, staff could readily and quickly revise the TTSO to require the Discharger to perform these tasks.

Finding 43.a states: "The reducing conditions that create excess concentrations of arsenic, iron, and manganese in groundwater are reversible; arsenic, iron, and manganese will precipitate out of solution when organic overloading ceases and oxygen is reintroduced to groundwater. This can be accomplished by the implementation of management practices to promote the even distribution of organic materials at rates that do not overwhelm the treatment capacity of the soils. To ensure the ongoing discharge does not result in further impermissible degradation, this Order sets a cycle average BOD loading limit of 100 lbs/acre/day to the 150-acre LAA and the new 53-acre LAA, over the course of an appropriate discharge cycle. This Order also requires the Discharger to implement measures to ensure the even application of wastes, and groundwater monitoring to confirm that water percolating to groundwater will not exacerbate existing groundwater pollution."

First, the proposed BOD loading rate of 100 lbs/acre/day may be effective at preventing odor nuisance

conditions but has not been demonstrated to be protective of groundwater at this site (or any other site for that matter). Second, the precipitation of arsenic, iron, and manganese in groundwater passing under and beyond the discharge area may theoretically occur if and when groundwater dissolved oxygen levels recover to ambient levels, the TWDRs do not speculate how long (years? decades?) it would take for groundwater to meet water quality objectives for these three constituents. In light of the elevated concentrations of total organic carbon in groundwater caused by the existing discharge, and the unproven effectiveness of the proposed BOD loading rate to prevent organic overloading of groundwater, it is likely that dissolved oxygen levels in affected groundwater will never be sufficient to precipitate arsenic, iron, and manganese to concentrations low enough to meet water quality objectives without a concerted effort of injecting oxygen into the groundwater flowing under and beyond the discharge area (e.g., as part of a cleanup and abatement order). In any event, without site-specific scientific evidence supporting otherwise, the TWDRs appear to authorize the Discharger to continue polluting groundwater indefinitely for arsenic, iron, and manganese, and appear to designate in situ treatment as a new beneficial use of groundwater.

The TTSO allows the Discharger three years to implement changes in its wastewater delivery system to meet discharge specifications in the TWDRs (e.g., BOD loading of 100 lbs/acre/day), but does not show why the Discharger should need such a long time to make the necessary simple modification in its wastewater delivery system. Indeed, the Discharger could readily and immediately rent surface sprinkler system equipment (e.g., from Rain for Rent) while it installs a permanent subsurface sprinkler system. After all, the Discharger is the world's third-largest wine producer by volume, according to the Discharger's website, <http://thewinegroup.com/about-us/>. Surely, this Discharger has sufficient financial resources to implement such modifications to comply with the TWDRs within one year.

Additionally, the TWDRs Order should identify on a map (e.g., Attachment A or another attachment) the various APNs cited in Finding 7 for the winery, the existing 150-LAA, and the new 53-acre LAA. Lastly, the TWDRs and TSSO should be revised to respond to comments received by the comment deadline and recirculated for public comment, including their distribution by the U.S. Postal Service to residences and businesses within a one-mile radius of the discharge.

Thank you for the opportunity to submit these comments.

Jo Anne Kipps  
RCE 49278