

7 September 2021

Jo Anne Kipps
Fresno, CA

Patrick Pulupa, Executive Officer
Central Valley Water Quality Control Board

Via email to: Elizabeth.Welch@waterboards.ca.gov

Comments — Tentative WDRs Order for O’Neill Vintners & Distillers, LLC, Reedley Winery, Class II Surface Impoundment, Fresno County

This letter transmits my comments on the subject Tentative Order issued 5 August 2021. I am a California registered civil engineer and, from 1998 through 2010, worked in the Regional Board’s Fresno office, mostly in the WDR Program (aka Non-15 Program).

For over 60 years, the Regional Board has regulated the Reedley Winery’s industrial wastewater and stillage discharge to land for crop irrigation, soil treatment, and ultimate disposal to groundwater. It is my understanding that a winery has been operating in that location and discharging to land for several decades before that.

The nearby Kings River provides a source of high quality groundwater upgradient of the discharge area. Were it not for the discharge, groundwater underlying the discharge area would likely meet all or most applicable water quality objectives. But, due to the inadequacy of the WDRs regulating this discharge through the decades, groundwater underlying the discharge is severely polluted by waste constituents in the discharge (like potassium) or by decomposition byproducts (like ammonia, iron, manganese, hardness, and alkalinity). In my professional opinion, it is among the worst examples of groundwater pollution created by a winery discharge in the Central Valley.

According to the Discharger’s most recent groundwater monitoring report, the TDS of impacted groundwater is as high as 1,400 mg/L (over four times upgradient). The high TDS is largely due to elevated levels of potassium (up to 350 mg/L) and hardness (up to 580 mg/L). And, impacted groundwater contains elevated levels of total organic carbon (up to 20 to even 150 mg/L) and up to 43 mg/L of ammonia as nitrogen (ammonia, *for crying out loud!*). The elevated potassium is particularly concerning because upgradient potassium is typically below 5 mg/L. This strongly suggests the soil profile has little or no remaining assimilative capacity for potassium.

When the Regional Board adopted the latest iteration of WDRs, Order R5-2014-0045, it also adopted Cease and Desist Order (CDO) R5-2014-0046. The CDO imposes a time schedule for the Discharger to identify and implement specific control measures by 30 March 2015, and to complete the approved work no later than 28 March 2018 (Task 2.c). The CDO also imposes a time schedule for assessing the horizontal and vertical extent of elevated EC, TDS, nitrate, and ammonia concentrations in groundwater beneath and downgradient of the discharge. Task 3.b requires the Discharger to submit a technical report describing the extent of groundwater pollution by 28 March 2017.

According to CIWQS, the Discharger has not complied with CDO Tasks 2.c and 3.b (Violation ID 1056796). If the information in CIWQS is correct, then, as of today, the Discharger faces a potential civil liability of \$28,883,000 pursuant to California Water Code Section 13385. Because of the egregious nature of groundwater pollution caused by the ongoing discharge and the Discharger's apparent flagrant disregard for the CDO's requirements, management should seriously consider issuing the Discharger an administrative civil liability order for these violations.

My aim in offering this prologue is to address the ineffectiveness of regulating this and other winery wastewater discharges to land under the Non-15 Program. Title 27 WDRs for discharges of designated waste to Class II surface impoundments, such as the subject Tentative Order, are relatively brief and straightforward since they implement Title 27 prescriptive standards. Non-15 WDRs for uncontained discharges to land of similarly high-strength designated waste have no such regulatory framework to implement. Instead, Non-15 WDRs cite the exemption criteria in Title 27, Section 20090. But, just because the Regional Board issues WDRs for discharges of designated waste under the Non-15 Program doesn't mean that the discharges comply with the Basin Plan. In other words, just saying it doesn't make it true. Clearly this is not the case for this and other winery wastewater discharges that have polluted groundwater. At issue is the reasoning behind the determination by staff (or more likely by management) of whether a discharge should be regulated under the Title 27 or the Non-15 Program.

Case in point is the current discharge to the Reedley Winery's Class II surface impoundment. WDRs Order 5-01-141 currently regulates this discharge under the Title 27 Program. The subject Tentative Order proposes to rescind and replace this order, still by requiring compliance with Title 27. The Regional Board has authorized and continues to authorize the winery's discharge to land, albeit ineffectively. Therefore, is a wonder why, seemingly out of the blue, the Regional Board decided 20 years ago to require a small percentage of the Discharger's overall wastewater flow (less than ten percent) be disposed of by discharge to a Class II surface impoundment.

Current Order

Twenty years ago, the Regional Board adopted WDRs Order 5-01-141 for a new discharge of up to 34,300 gpd of wastewater from the Discharger's new bottling plant and tank farm, along with high-saline waste streams diverted from the winery's land discharge. Findings in this order indicate the Discharger characterized the proposed discharge to the Class II surface impoundment as having 2,350 umhos/cm EC; 1,750 mg/L TDS; 1,090 mg/L sulfate; 330 mg/L sodium; and 80 mg/L BOD (Finding 21). Finding 17 characterizes groundwater as being "significantly degraded" by the facility's winery wastewater discharges to land, evidenced by values of up to 2,380 umhos/cm EC, 1,286 mg/L TDS, and 280 mg/L BOD.

Finding 22 in the current order defines "designated waste" and concludes that "[w]astewater discharged at the facility exceeds applicable water quality objectives and has the potential to affect beneficial uses of waters of the state and is, therefore, classified as designated waste." The current order does not offer findings summarizing an analysis of the potential for applied waste

constituents to attenuate in the soil profile to levels that would not threaten to unreasonably degrade groundwater, a common feature of Non-15 Program WDRs. Instead, its requirement that the discharge of designated waste be subject to Title 27 prescriptive standards appears to be based on this fact: both the discharge and receiving water contain waste constituents in concentrations exceeding applicable water quality objectives. Armed with this finding, the current order requires the Discharger to comply with Title 27, which essentially allows for no discharge to groundwater.

What was it about this discharge that prompted the Regional Board to require the Discharger to comply with Title 27? Was it because Fresno County, in performing its environmental review of the new bottling plant and tank farm, determined that the waste generated by these new facilities must be discharged to a Class II surface impoundment so as to not exacerbate an existing condition of pollution? In other words, was it Fresno County or the Regional Board that made this determination? While these questions may not appear germane to the Tentative Order, the answers will be a valuable addition to the public record of this discharge.

Tentative Order

Finding 9 states, in part, "Waste discharged to the surface impoundment is treated in the surface impoundment by means of evaporation." Please explain why evaporation is considered a form of wastewater treatment.

Finding 14 states, "The Discharger currently discharges a maximum of approximately 34,300 gallons per day of industrial wastewater from the tank farm and bottling plant to the Class II surface impoundment." Finding 15 indicates that high-saline waste streams (i.e., ion exchange regenerant, boiler blowdown) segregated from the winery's discharge to land are diverted to the surface impoundment. It is unclear as to whether the 34,300-gpd flow identified in Finding 14 includes these high-saline waste streams. If so, then Finding 14 should be revised accordingly so that there is no ambiguity in the nature of the waste discharged to the surface impoundment. This is essential for evaluating compliance with Discharge Prohibition A.2, "Except the waste as specifically described in **Finding 14**, 'Designated Waste,' as defined per Water Code section 13173, and other waste shall not be discharged at the Facility." Without this modification, it would appear that the Discharger would be in violation of Discharge Prohibition A.2 should it continue to divert the winery's high-saline waste streams to the surface impoundment.

The 34,300-gpd discharge flow cited in the Tentative Order (Finding 14) is the same value cited in WDRs Order 5-01-141 as the Discharger's estimate (Finding 19). WDRs Order 5-01-141, in its Monitoring and Reporting Program (MRP), requires daily monitoring of the quantity of liquid waste discharged to the surface impoundment. Therefore, it should not be difficult to confirm whether the current discharge flow to the surface impoundment does not, in fact, exceed 34,400 gpd. In any event, the Tentative Order should characterize actual current daily discharge flow values, especially if they differ from that originally estimated by the Discharger 20 years ago.

Finding 17 states, "The calculated composition of the combined wastewater was previously characterized by the following constituents: pH (9.5), Sulfate (4,520 mg/L), Chloride

(4,860 mg/L), and Electrical Conductivity (26,600 µmhos/cm).” It is not readily apparent what is meant by “previously characterized.” Please explain. MRP 5-01-141 requires monthly monitoring of the surface impoundment for dozens of waste constituents. Why doesn't the Tentative Order characterize the surface impoundment for decomposable waste constituents like BOD to evaluate the potential for the impounded waste to create objectionable odors?

The Tentative Order carries over the current order's prohibition of discharge of hazardous waste to the surface impoundment (with slightly different wording). Yet, because both the current order and Tentative Order do not require monitoring of the quality of discharge to the surface impoundment, there is no way of readily evaluating compliance with this discharge prohibition. At a minimum, the Tentative Order's MRP should be revised to include monitoring of discharge for pH (either daily grab samples or continuous).

Also, the quality of the discharge to the surface impoundment should be periodically monitored for the same suite of constituents required in MRP R5-2014-0045 (EFF-001). Since this data have not been required in the past, the monitoring frequency should be at least monthly for one year and quarterly thereafter. The resulting data would be extremely helpful on a programmatic level in general. And, it would be useful for Non-15 staff to cite in management memos that propose issuing enforcement measures requiring dischargers to mitigate groundwater pollution by segregating high-strength waste streams from land discharges and disposing of them by discharge to Class II surface impoundments.

Lastly, neither the current order nor Tentative Order contains a discharge flow limitation. Perhaps it is because Title 27 WDRs for Class II surface impoundments prescribe a minimum freeboard requirement to serve as an indirect flow limitation. Please confirm.

The party name identified in CIWQS for both the Title 27 and Non-15 WDRs Orders is O'Neill Beverages Co LLC. I understand that a name change order has yet to be processed to reflect the winery's current owner (O'Neill Vintners & Distillers, LLC). It would be useful if the Tentative Order identified when the winery ownership changed.

Thank you for the opportunity to submit these comments.



JO ANNE KIPPS
RCE 49278