

Central Valley Regional Water Quality Control Board
October 2009 Board Meeting

Response to Comments for Small Food Processors and
Small Wineries within the Central Valley Region
Tentative Conditional Waiver of Waste Discharge Requirements

The following are Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff responses to comments submitted by interested parties regarding the tentative Conditional Waiver of Waste Discharge Requirements for Small Food Processors and Small Wineries within the Central Valley Region. The order was distributed for public comment on 30 July 2009. Comments were required to be submitted to the Central Valley Water Board by midnight on 30 August 2009. Comments were received from the following parties within the comment period:

1. The California Sportfishing Protection Alliance (CSPA);
2. The El Dorado Winery Association (EDWA); and
3. Julie Larson

The comments were accepted into the record and are summarized below, followed by Central Valley Water Board staff responses.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE COMMENTS

Comment No. 1: The proposed waiver would allow the discharge of waste that potentially exhibits high concentrations of biochemical oxygen demand (BOD) salinity (measured as total dissolved solids or TDS) and nitrogen in violation of hazardous waste regulations and the Basin Plan water quality objectives.

The comment specifically refers to the data table in Finding No. 16 and states that:

- a. Any waste that exhibits a pH of 2 is a hazardous waste and cannot be legally discharged under a waiver of waste discharge requirements (WDRs).
- b. The discharge of waste with a TDS concentration in excess of the agricultural water quality goal of 450 mg/L and the secondary maximum contaminant level (MCL) of 500 mg/L threatens the beneficial uses of groundwater.
- c. The discharge of waste with a nitrate nitrogen concentration in excess of the primary MCL of 10 mg/L threatens the beneficial uses of ground water.

RESPONSE:

First, the data presented in Finding No. 16 were intended only to illustrate the need for regulation of these discharges by the Central Valley Water Board. The data are concentration ranges for both individual and combined waste streams from food processing facilities that do not treat their waste or segregate high salinity waste streams for other forms of disposal. The character of the overall waste stream within a winery or other food processing facility tends to vary considerably depending on the processes in use at the time. The wastewater may briefly exhibit low pH, high BOD, high nitrogen, and/or high salinity.

However, it is typically commingled within the wastewater drainage and storage system with earlier and later flows that exhibit lower waste constituent concentrations and less extreme pH. Additionally, the proposed waiver requires that known high salinity waste streams that do not typically contain significant organic matter or plant nutrients be segregated for off-site disposal at an appropriately permitted facility. Such waste streams include water softener regeneration brine, boiler blowdown, and evaporative cooling water. Therefore, the extreme values cited in Finding No. 16 are not generally representative of the overall discharge to land that is authorized under the proposed waiver. Finding No. 16 has been revised to clarify this point.

Second, the proposed waiver allows the discharge of certain potentially high strength¹ wastes only under conditions that were specifically developed to ensure that the discharges would not be in violation of hazardous waste regulations and the Basin Plan water quality objectives. These conditions include:

- a. The discharge of hazardous waste is prohibited (C.2).
- b. The discharge of water softener regeneration brine, boiler blowdown, or other high salinity waste is prohibited (C.6).
- c. No more than 120,000 gallons of liquid waste can be applied to land each year (A.1). Most operations covered by the waiver will use the wastewater to irrigate their own vineyards. A discharge of 120,000 gallons of wastewater over a single acre is equivalent to 4.4 inches of water per year, which is far less than the annual water needs of most crops or landscaping that can be grown in the Central Valley region.
- d. Liquid waste must be applied to cropped or landscaped areas at rates that match the water, nitrogen, and other crop nutrient needs of the vegetation grown (C.13.b).

Therefore, no revisions were made to address this part of the comment.

Comment No. 2: The proposed waiver allows discharge of these wastes in areas where there is little soil above fractured bedrock (e.g., areas in the Sierra foothills); very porous volcanic rock (e.g., areas surrounding Clear Lake); and very shallow groundwater (e.g., low-lying areas throughout the Valley floor). The lack of a specified minimum depth of soil allows for rapid migration of pollutants to groundwater, threatening its beneficial uses.

RESPONSE:

The commenter correctly notes that soil thickness and groundwater depth within the Central Valley are both highly variable and that discharge sites with “thin” soil and/or shallow groundwater can increase the risk of groundwater degradation. The waiver was developed

¹ As noted by the commenter, the term “high strength” wastewater usually refers to wastes exhibiting a BOD concentration of 300 mg/L or greater. Such wastes usually also contain higher levels of nitrogen than ordinary domestic wastewater.

specifically to address this concern by incorporating the stringent conditions of discharge that are noted above. A new finding (No. 11) was added to clarify this. The proposed waiver was also revised to clarify that groundwater degradation may occur at some of the higher risk sites. However, based on the restrictions on the volume of waste discharged and other conditions of discharge imposed by the proposed waiver, any such degradation is expected to be highly localized, and should not cause exceedance of a Basin Plan water quality objective or impact any beneficial uses of groundwater.

Comment No. 3: The proposed waiver allows land discharge of residual solids from wineries, which would include stillage wastes. A letter was submitted to the Central Valley Water Board by Ms. Jo Anne Kipps on 20 July 2009 to comment on the *Triennial Review of the Water Quality Control Plan for the Sacramento and San Joaquin River Basins*. This letter details the groundwater quality issues associated with the discharge of stillage wastes and should be considered prior to adoption of the proposed waiver.

RESPONSE:

Distillation is employed by certain large winemaking companies to produce “fortified” products with higher alcohol content. The wineries covered under the proposed waiver will be small wineries that are very unlikely to produce fortified wine products. Nevertheless, Specific Condition C.6 was revised to clarify that the discharge of stillage waste is prohibited.

Comment No. 4: The proposed waiver does not include an antidegradation analysis as required by the California Water Code. The proposed waiver would allow exceedance of water quality objectives for groundwater which is not allowed by the Antidegradation Policy (State Water Resources Control Board Resolution No. 68-16).

RESPONSE:

Additional antidegradation findings were added to address this comment.

CSPA’s comment that federal antidegradation requirements apply to the proposed Order is incorrect. Order 86-17 (*Rimmon C. Fay*) stated the opposite: “State Board Resolution No. 68-16 incorporates the test set forth in the federal antidegradation policy only as applied to situations where the federal antidegradation policy is applicable. Where the federal antidegradation policy does not apply, the State and Regional Boards have applied the general test set forth in State Board Resolution No. 68-16, without addressing the specific, three-part test established by the federal antidegradation policy. See, e.g. State Board Order No. WQ 86-8 at 30- 31.” (*Id.* at p. 19.)

Comment No. 5: Fixed dissolved solids (FDS) data are useless in determining compliance with water quality standards and objectives because water quality standards and objectives are listed in terms of total dissolved solids (TDS), and the

organic solids fraction (volatile dissolved solids or VDS) can migrate through soil and degrade groundwater quality.

RESPONSE:

Staff disagrees. The FDS concentration is a good low-cost indicator of the salinity threat in cases where wastewater with high BOD is applied to land and the land application of the waste is managed to promote biodegradation of the organic matter. The TDS of high strength wastes is usually very high due to the presence of biodegradable organic matter, confounding our ability to assess the salinity of the waste without further, more expensive analyses. Regardless, the actual text that the commenter refers to (B.5.d) states that chemical analysis of the wastes may be required, "...including at a minimum five-day biochemical oxygen demand, total nitrogen, pH, and fixed (inorganic) dissolved solids." (Emphasis added). Therefore, no revision was made to address this comment.

Comment No. 6: The Central Valley Water Board acted as lead agency for this project under the California Environmental Quality Act (CEQA) and determined that the adoption of Resolution No. 82-036 would not cause a significant environmental impact. The Negative Declaration was approved by the Central Valley Water Board on 23 December 1981 when less was known about the water quality threat posed by land discharge of food processing wastes. Since then, the Central Valley Water Board has documented groundwater degradation issues at food processing facilities and wineries. The twenty-eight year old CEQA document does not adequately address the potentially significant impacts to groundwater quality.

RESPONSE:

The commenter correctly notes that some new information about the threat to groundwater quality associated with land discharges of food processing wastes has become available since 1981. However, that does not mean that the CEQA document in question is legally inadequate.

The 1982 waiver (Resolution No. 82-036) and the associated 1981 Negative Declaration covered all land discharges of food processing waste, regardless of waste volume or location. Resolution No. 82-036 only required that dischargers of food processing waste follow an approved operating/maintenance plan. (See, Basin Plan, Table IV-1.) The Board renewed the waiver in 2003 with more stringent conditions. The proposed waiver includes similar conditions, which are more restrictive because:

- a. It requires the equivalent of an operating/maintenance plan within the application form;
- b. It incorporates strict limits on the volume that can be discharged to land; and
- c. It incorporates current best management practices as specific conditions of discharge.

A lead agency is only required to prepare a new CEQA document based on new information in limited circumstances. (Pub. Res. Code § 21166, Cal. Code of Regs., tit. 14, § 15162.) The “new information” test for a subsequent CEQA document has three prongs. All three prongs must be satisfied to require a new CEQA document. These three prongs are: (1) that “new” information of substantial importance becomes available; (2) that the “new information” was not known and could not have been known at the time the prior CEQA document was approved; and (3) that the “new information” shows either that the project will have one or more significant effects not previously discussed in the CEQA document or that significant effects previously examined will be substantially more severe than shown in the previous document.

CSPA refers to “new” groundwater monitoring information. This information was not considered at the time of the 1981 negative declaration but it “could have been known” had the Board started to require groundwater monitoring at an earlier time. The proposed Order limits the type of facilities that may enroll, and includes conditions that will prevent any exceedences of groundwater objectives. There is no evidence of new or different effects on water quality from the discharges regulated by the proposed Order. Staff has concluded that any impact to water quality will be less than significant because discharges in compliance with the waiver will not cause exceedance of a Basin Plan water quality objective or adversely impact any beneficial uses of groundwater.

CSPA refers to “new information” about low pH, high nitrate, salts and organic loadings. As explained in staff’s responses to these specific comments, staff disagrees that this so-called “new information” demonstrates potential adverse impacts to groundwater.

CSPA challenges the adequacy of the 1981 negative declaration. The statute of limitations to challenge the negative declaration has long since passed. The mere passage of 28 years does not invalidate the prior CEQA document. In addition, any facilities that are currently discharging are “existing facilities” that are exempt under California Code of Regulations, title 14, section 15301.

Therefore, a new CEQA document is not required.

Comment No. 7: The waste and discharge characterization required to obtain coverage under the proposed waiver is not adequate. No sampling and analysis of the wastewater is required to obtain coverage, and no ongoing monitoring is required to assure that the original characterization was accurate, or to assess the potential impacts to groundwater quality. Any characterization and assessment of the sites and the potential for groundwater degradation should be made by a registered professional engineer or geologist.

RESPONSE:

As noted in Finding No. 16, numerous wineries and food processors have submitted waste characterization data to the Central Valley Water Board. Therefore, the chemical character of such wastes is well known to staff. That data, combined with the facility-specific information

about processes and chemical usage required in the application for coverage under the waiver is sufficient for staff to determine whether the threat is low enough to justify coverage under the proposed waiver.

The Basin Plan's Antidegradation Implementation Policy states:

Pursuant to this policy, a Report of Waste Discharge, or any other similar technical report required by the Board pursuant to Water Code Section 13267, must include information regarding the nature and extent of the discharge and the potential for the discharge to affect surface or ground water quality in the region. This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives. The extent of information necessary will depend on the specific conditions of the discharge. For example, use of best professional judgment and limited available information may be sufficient to determine that ground or surface water will not be degraded (emphasis added). In addition, the discharger must identify treatment or control measures to be taken to minimize or prevent water quality degradation.

The proposed waiver imposes specific conditions of discharge that are based on the extensive waste characterization for wineries and food processors contained in the literature and the Central Valley Water Board's files. Additionally, the Report of Waste Discharge technical information form developed specifically for the proposed waiver requires that applicants disclose the type and amount of any chemicals used in processing and details of the proposed land discharge operation. This information, combined with readily available hydrogeological reports and staff's professional judgment is sufficient to determine the threat of unreasonable degradation.

Requiring applicants to retain a consulting engineer or geologist to complete the application for coverage under the waiver can pose an unnecessary financial burden for small business owners. Staff believes that any applicant who can supply the required information should be allowed to do so. As in the past, incomplete or otherwise inadequate applications will not support coverage under the waiver. Additionally, some applicants will voluntarily retain a consultant to assist them because it is either convenient or necessary for them to do so. It should also be noted that the State Water Resources Control Board's (State Water Board's) general permits for discharges of storm water to surface water do not require that the Storm Water Pollution Prevention Plan be prepared by a registered professional.

Therefore, the proposed waiver was not revised to address this comment.

EL DORADO WINERY ASSOCIATION COMMENTS

Comment No. 8: The proposed waiver should allow parties who were covered under, and fully complied with, the previous (expired) waiver to apply for coverage under the proposed waiver without paying another fee and without submitting a new application.

This would prevent economic hardship for small wineries and food processors and provide an incentive for compliance with the waiver.

RESPONSE:

The core regulatory programs of the Central Valley Water Board are funded by permit fees that are set forth in the California Code of Regulations. The State Water Board periodically evaluates the fee schedule and revises it as needed to sustain the regulatory programs. When the previous waiver was adopted in 2003, the fee for coverage under the waiver was \$400. The State Water Board has since increased the fee gradually, and it is now is \$1,226. This is a one-time fee that equates to \$245 per year for dischargers that obtain coverage within the first year after adoption of the waiver. This modest fee is barely sufficient to cover the Central Valley Water Board's actual cost for reviewing a discharger's application, preparing a Notice of Applicability to authorize coverage under the waiver, and reviewing the required annual monitoring report. It is not sufficient to support the facility inspections, complaint handling, or enforcement actions that were necessary under the previous waiver. Therefore, it is not appropriate to waive the application fee even for the smallest of discharges. No revisions were made to address this comment.

Comment No. 9: If a party covered under the previous waiver previously submitted a Notice of Non-Applicability (NONA) to justify not obtaining coverage under the *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities* (State Water Board Order No. 97-03-DWQ), it should not be necessary to submit it again.

RESPONSE:

The application form for coverage under the waiver has been revised to address this comment. The applicant will only have to state that a NONA was previously filed and not rejected by Central Valley Water Board staff.

Comment No. 10: Reference materials should be provided to help applicants calculate allowable nitrogen loading rates.

RESPONSE:

Staff agrees that some form of technical guidance would be helpful to applicants. However, our staff resources are very limited. With assistance from the industry associations, we may be able to set up an internet link that provides some tools.

Comment No. 11: The requirement to segregate wastewater from cleaning of evaporative coolers for separate disposal is not needed. These are small wineries and use small evaporative coolers of the type and size used in residences ("swamp coolers"). Based on analysis of the used cooling water combined with the water used to clean the cooler during annual maintenance, the mass of salt to be discharged from

the cooling system at one small winery is approximately two pounds per year². This does not pose a significant threat to the environment.

RESPONSE:

Staff agrees that the supplemental technical information memorandum submitted on 8 September 2009 demonstrates that that incremental increase in the salinity of the overall waste stream associated with a single residential-type evaporative cooler is minimal when considered in the context of the total salinity loading from high quality irrigation water for a typical vineyard. However, the supplemental technical information is based on the water supply, waste character, and operational practices of one very small winery that generates far less wastewater than the total volume allowed under the proposed waiver. Therefore, the analytical data and calculations provided are interesting, but do not necessarily represent all discharges that might be covered under the waiver.

The proposed waiver allows land discharges of up to 120,000 gallons of wastewater per year from wineries and food processors of any size. While a small winery may only use a single small evaporative cooler to cool and humidify the barrel storage area, a larger winery that qualifies for coverage under the proposed waiver may have a much larger evaporative cooling system and could discharge much more of this high salinity waste. It is not practical to allow land discharge of even a limited volume of high salinity waste because:

1. The salinity of the waste (and therefore the mass of salinity discharged) will likely vary significantly between facilities regulated under the waiver. The variability is due to varying salinity of water supplies across the region, and facility specific differences in the frequency of cooler use and cleaning;
2. Staff is unable to establish an effluent salinity limit or mass loading limit that would be protective of groundwater quality under all of the highly varied hydrogeologic conditions in the Central Valley Region;
3. It is not appropriate to impose an effluent salinity limit or mass loading limit without requiring periodic sampling and analysis to verify compliance with the limit. Staff believes that the cost of such monitoring would not be acceptable to most dischargers to be covered under the waiver, and would likely be much greater than the annual cost of disposing of such wastes at an off-site permitting waste facility; and
4. Segregation of high salinity waste streams for off-site disposal is one of the key best practicable treatment and control measures required by the proposed waiver to ensure that all of the discharges regulated under the waiver will comply with State Water Board Resolution No. 68-16.

Therefore, the proposed waiver was not revised to address this comment.

² Additional technical information to support this comment was submitted by Mr. Dan Hinrichs on behalf of the El Dorado Winery Association 8 September 2009, after the close of the public comment period. This information was received in time for staff to carefully consider this technical information and it is therefore included in the public record for this item.

COMMENTS OF JULIE LARSON

Comment No. 12: I own a very small winery that generates approximately 1,500 gallons of wastewater and 130 gallons of residual solids per year. I obtained coverage under the previous waiver, paid the application fee at that time, and have complied with the waiver. The application fee has since increased to over \$1,200, which is a financial hardship for my business. If I have to pay the fee again, I may be forced to close my winery. Please consider establishing a waiver of fees for the smallest wineries.

RESPONSE:

See response to Comment No. 8.