



## California Sportfishing Protection Alliance

*"An Advocate for Fisheries, Habitat and Water Quality"*

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6 January 2009

Mr. Ken Landau, Assistant Executive Officer  
Mr. Jim Marshall, Sr. WRCE  
Ms. Mary E. Serra, P.E.  
Regional Water Quality Control Board  
Central Valley Region  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6144

VIA: Electronic Submission  
Hardcopy if Requested

RE: Waste Discharge Requirements for Barrel Ten Quarter Circle Land Company, Barrel Ten Quarter Circle, Escalon Cellars, San Joaquin County

Dear Messrs. Landau, Marshall and Ms. Serra,

The California Sportfishing Protection Alliance (CSPA) has reviewed the proposed Waste Discharge Requirements for Barrel Ten Quarter Circle Land Company, Barrel Ten Quarter Circle, Escalon Cellars (WDR) and submits the following comments.

CSPA requests status as a designated party for this proceeding. CSPA is a 501(c)(3) public benefit conservation and research organization established in 1983 for the purpose of conserving, restoring, and enhancing the state's water quality and fishery resources and their aquatic ecosystems and associated riparian habitats. CSPA has actively promoted the protection of water quality and fisheries throughout California before state and federal agencies, the State Legislature and Congress and regularly participates in administrative and judicial proceedings on behalf of its members to protect, enhance, and restore California's degraded water quality and fisheries. CSPA members reside, boat, fish and recreate in and along waterways throughout the Central Valley, including San Joaquin County.

Comments were prepared for the proposed Waste Discharge Requirements (WDRs) based on our concern regarding significant uncontrolled groundwater degradation and inadequate regulatory corrective measures, specifically failure to comply with the California Environmental Quality Act (CEQA), California Code of Regulations Title 27 for wastewater disposal and the Board's Antidegradation Policy, after reviewing the following excerpts from the proposed Order and attachments:

- "Cease and Desist Order (CDO) No. R5-2003-0012 was adopted on 31 January 2003 in response to groundwater quality degradation beneath the Land Application Areas (LAAs). CDO No. R5-2003-0012 was rescinded and replaced by CDO No. R5-2003-0125 on 5 September 2003 after the Discharger purchased the facility. The revised CDO changed the due dates for several of the technical reports that were required of the previous owner. The Discharger was planning to

change the winery operations and therefore sought a technical report schedule change.

- The Discharger was allowed time to perform studies and design a wastewater system that would halt the continuing groundwater degradation. The Discharger performed the studies and submitted a Report of Waste Discharge (RWD), but the system is not protective of groundwater quality.
- Winery wastewater is typically high in total dissolved solids, fixed dissolved solids, biochemical oxygen demand, and nitrogen.
- A new 8.3-acre tailwater/wastewater collection pond was constructed in the land application areas. The pond was constructed prior to revising the Waste Discharge Requirements (WDRs) for the facility; it is not lined and therefore may not be protective of groundwater quality.
- The Discharger has proposed grass hay as the crop in the future main LAAs. However, the Fixed Dissolved Solids (FDS) loading rate greatly exceeds the crop uptake rate.
- The Discharger has investigated on- and off-site groundwater quality by installing groundwater monitoring wells, pan lysimeters, and cone penetration tests. Groundwater quality at the winery has been degraded for electrical conductivity, total dissolved solids, calcium, magnesium, sodium, sulfate, chloride, hardness, bicarbonate, and alkalinity. The degradation is the result of waste application at the facility.
- The investigation revealed that a nearby dairy (G&H Dairy, 16996 Sexton Road) appears to have impacted groundwater quality, but the winery wastewater has also increased the degradation. The determination of background groundwater quality at the facility is complicated by the presence and activities of the dairy. The dairy applies dairy wastewater on LAAs that are located to the west, north, and east of the winery facility and LAAs.
- The northern area of the winery consists of the 39.2 acre and 16.5 acre LAAs, and 8.3 acre Tailwater Pond. The northern area of the site is best characterized by the groundwater quality of Well MW-6, as cited in Finding No. 46. Groundwater quality is considered to likely be impacted by upgradient waste application areas as well as wastewater percolating from the on-site LAAs.
- An effluent limitation for electrical conductivity is included in the WDRs. Consistent with the Salinity Guidance Memo available on the Regional Board's webpage (<http://www.waterboards.ca.gov/centralvalley/cv-salts/progs-polic-rpts/salt-2007-guide-mem.pdf>), an interim limit of 1,000 umhos/cm was established. That limit will provide some protection of groundwater quality while the Discharger prepares the *Background Groundwater Quality and Groundwater Cleanup Standard* report required by the companion CDO. Staff believes the final limit is likely to be lower than 1,000 umho/cm, but the limit allows the Discharger to continue operating while improvements are constructed.
- The Discharger has not provided any supporting information to allow degradation

of groundwater quality. Therefore, no degradation is allowed.

- Groundwater monitoring has been conducted at the site and groundwater quality has been degraded. But the Discharger is allowed to determine cleanup levels as part of site remediation. These proposed Orders establish effluent limitations to control degradation while wastewater treatment and a remediation system is designed.”

**1. The proposed waste discharge requirements (WDRs) do not comply with California Code of Regulations (CCR) Title 27 as the discharge is not in compliance with the applicable water quality control plan (Basin Plan).**

Discharges of wastewater may be exempted from CCR Title 27 requirements only if: waste discharge requirements have been issued; the discharge is in compliance with the applicable Basin Plan, and; the wastewater is not hazardous (Section 20090). The Basin Plan contains water quality objectives for groundwater. The Basin Plan *Water Quality Objectives for Groundwater* requires groundwater not exceed: 2.2 MPN/100 ml for coliform organisms; the maximum contaminant levels (MCLs) from CCR Title 22 for drinking water; taste or odor producing substances that cause nuisance or adversely affect beneficial uses, and; toxic substances that produce detrimental physiological responses in human, plant, animal or aquatic life associated with designated beneficial uses. The Basin Plan also includes the State and Regional Board Antidegradation Policy (Resolution 68-16). The Antidegradation Policy requires the maintenance of high quality waters. In accordance with the Antidegradation Policy changes in water quality are allowed only if the change is consistent with maximum benefit to the people of the state; does not unreasonable affect present and anticipated beneficial uses; does not result in water quality that exceeds water quality objectives, and; best practicable treatment and control of the discharge is provided.

Groundwater quality at the winery has been degraded for electrical conductivity, total dissolved solids, calcium, magnesium, sodium, sulfate, chloride, hardness, bicarbonate, and alkalinity. The degradation is the result of waste application at the facility. The discharge has also not been shown to be in compliance with the Basin Plan incorporated Antidegradation Policy (68-16). The Antidegradation Policy requires that an allowance for any degradation must be shown to be in the interest of the people of the state, must not exceed water quality standards and that the discharge must provide best practicable treatment and control (BPTC) of the discharge. The Discharger has degraded groundwater quality; however none of the tests of the Antidegradation Policy have been met. The proposed WDR should not be adopted. A Cleanup and Abatement Order should be issued immediate cessation of all wastewater discharges until the Discharger applies for, a Title 27 permit is issued, and can comply with the requirements of CCR Title 27. A winery is a for profit business; degrading groundwater quality for profit is not in the best interest of the people of California. Other wineries in the Central Valley comply with the requirements of Title 27 by constructing wastewater facilities that meet the prescriptive construction standards and do not result in the release of pollutants to groundwater or surface water. Therefore, compliance with Title 27 requirements should be considered BPTC for this discharge.

The proposed WDR does not exempt the discharger from Title 27 requirements. The record clearly shows that the Discharger's waste and disposal practices have released constituents that

degraded and polluted the underlying groundwater. In fact, the Regional Board has determined in Cease and Desist Order R5-2003-015 that “This data indicates the discharge of waste from Barrel Ten – Escalon has degraded the underlying groundwater.” The C&D Order Finding No. 19 states that “As a result of the events and activities described in this Order, the Regional Board finds that the Discharger has caused or permitted waste to be discharged in such a manner that it has created, and continues to threaten to create, a condition of pollution or nuisance.” In addition, the proposed WDR indicates that the facility has degraded the underlying groundwater. Groundwater degradation is discussed in proposed WDR Finding Nos. 36, 49 and 59. Finding No. 59 states in part that “...the winery activities have further degraded groundwater quality.” Based on the waste characterization data and the groundwater quality degradation that is observed, the winery waste stream discharged from the west sump to the land application is a designated waste due to concentrations of total dissolved solids, sodium, chloride, sulfate, and electrical conductivity that exceed background groundwater quality.

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 as contained in the appropriate state water quality control plan.” The discharge of EC or TDS may exceed water quality objectives for each designated beneficial use:

- MUN: The Drinking Water maximum contaminant levels (MCLs) are water quality objectives incorporated into the Basin Plan Chemical Constituents by reference. The MCL for TDS is 500 mg/l as the recommended level, 1,000 mg/l as an upper level and 1,500 mg/l as a short term maximum. *McKee and Wolf* (1971 Water Quality Criteria) cite that waters above 4,000 mg/l TDS are generally unfit for human use.
- AGR: The Basin Plan states, on Page III-3.00 Chemical Constituents, that “Waters shall not contain constituents in concentrations that adversely affect beneficial uses.” The Basin Plan’s “Policy for Application of Water Quality Objectives” provides that in implementing narrative water quality objectives, the Regional Board will consider numerical criteria and guidelines developed by other agencies and organizations. This application of the Basin Plan is consistent with Federal Regulations, 40CFR 122.44(d). For EC, *Ayers R.S. and D.W. Westcott, Water Quality for Agriculture, Food and Agriculture Organization of the United Nations – Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985)*, levels above 700  $\mu$ mhos/cm will reduce crop yield for sensitive plants. The State Water Resources Control Board’s *Irrigation with Reclaimed Municipal Waste (July 1984)* and *McKee and Wolf* (1971 Water Quality Criteria), state that waters with TDS above 2,100 mg/l are unsuitable for any irrigation under most conditions.
- IND: *McKee and Wolf* (1971 Water Quality Criteria) lists the limiting TDS concentrations for numerous industrial uses in mg/l; boiler feed water 50-3000, brewing 500-1000, canning 850, general food processing 850 and paper manufacturing 80-500.

The RWD and record indicate that the Discharger's waste has been discharged to groundwater at levels that degrade the designated beneficial uses and therefore is a "designated waste". The Discharger must comply with the prescriptive standards specified in Title 27, including but not limited to lining ponds to Title 27 standards, submitting a complete RWD for Title 27 and financial assurance documentation.

The hay crop that is proposed will not "prevent" degradation of the groundwater. Many of the waste constituents in the RWD have none or little nutrient value and thus the waste application will only further exacerbate the groundwater degradation. Salt has no agronomic application rate or beneficial application for plants. The information Sheet, page 2, states in part, "The flow limit is based on the hydraulic capacity of the LAAs but as described below, the loading rate for Fixed Dissolved Solids (FDS) likely exceeds the LAAs uptake capacity...The FDS loading rate is estimated to be 2,769 lbs/ac•year; the FDS crop uptake rate is estimated to be 510 lbs/ac•year. The Discharger can grow any crop on the LAAs they choose, but no crop takes up the amount of FDS that is presently being applied." According to *Wastewater Engineering Treatment and Reuse*, Metcalf & Eddy, 2003, the optimum bacterial degradation of organic wastes, the ratio of carbon to nitrogen to phosphorus (C:N:P Ratio) should be 20:5:1. The percolation of wastewater containing nitrogen but with disproportionately low concentrations of total organic carbon may retard denitrification and, absent sufficient aeration, may also retard nitrification. In anaerobic soil and groundwater conditions, concentrations of nitrogen in the form of ammonia can leach and discharge to groundwater. The Order fails to require that the Discharger maintain the proper ratio of organic waste need for optimum treatment. The Order does not even require the Discharger to monitor for the carbon and phosphorus. For that matter, the RWD failed to disclose what the actual concentration was for these wastes in the effluent. The proposed WDR fails to control the application of waste to the land application areas in any fashion which would prevent continued degradation of the groundwater and allows the Discharger to apply waste at concentrations known to exceed any plant uptake rate. Therefore, the proposed WDR simply does not comply with the Basin Plan and the Antidegradation Policy by preventing groundwater degradation.

In addition to the over application of waste to the irrigation area, waste discharge via percolation in the unlined ponds will result in additional degradation. The Discharger's water balance indicates that a significant amount of waste disposal will occur via pond percolation. The FDS loading rate is estimated to be 2,769 lbs/ac•year and the new unlined pond is 8.3 acres in size. The proposed WDR does not address the loading discharged to the pond and which will infiltrate the pond's bottom. The groundwater is reported to be about 60 feet below the surface. The reported infiltration rate for portions of the site is about 3.0 inches per hour. It is inevitable that the groundwater will be impacted within the first month after the Order's adoption.

The Regional Board utilizes The Designated Methodology for Waste Classification and Cleanup Determination, June 1989, for waste classification, which states, in part, "Where a very low degree of natural water quality protection may exist or for situations in which the mass loading of waste constituents is likely to saturate environmental attenuation processes (e.g., the discharge of large volumes of a liquid waste to a surface impoundment continuously over many years in an area with moderately permeable soils), a factor of one (1) should be used." The site-specific conditions include shallow groundwater with highly permeable soils and the lagoons will be used on a continuous basis. Therefore, the attenuation factor for the site is a factor of one.

The Designated Methodology states “The Total Designated Level for a constituent of a liquid waste is calculated by multiplying the water quality goal by the environmental attenuation factor that takes into account reasonable worst-case site- and waste-specific conditions at the proposed place of waste discharge.

$$\begin{array}{rcl} \text{Total Designated Level} & & \text{Water} & & \text{Environmental} \\ \text{for constituent of a} & = & \text{Quality} & ? & \text{Attenuation Factor} \\ \text{liquid waste (mg/l of waste)} & & \text{Goal (mg/l)} & & \end{array}$$

In the case of the ponds where the discharge is continuous, the environmental attenuation factor is set at one and therefore, the waste at the point of discharge cannot exceed water quality objectives.

The discharge of waste from the wastewater ponds is known to exceed applicable water quality objectives, the ponds and underlying soils have been found to have a maximum hydraulic conductivity significantly greater than  $1 \times 10^{-6}$  cm/sec, and under ambient environmental conditions the lagoon (i.e. waste management unit), waste is released. In fact, the groundwater data indicates, as described in Finding Nos. 36, 49 and 59. Finding No. 59 states in part that “...the winery activities have further degraded groundwater quality.”, and so the waste has already degraded groundwater in violation of the Basin Plan. Therefore, the wastewater is properly classified as a “designated waste” as defined by CWC Section 13173. The discharge of designated waste from the storage ponds and land application must comply with the requirements of Title 27 Section 20005 for the handling, storage and disposal of designated waste.

The Order must require the Discharger to comply with Title 27 regulations including, but not limited to, installing a synthetic liners and leachate collection system for the ponds (ponds are a surface impoundment), expansion of groundwater monitoring, financial assurance, and for closure and post closure plans.

The Information Sheet, page 6, states in part that, “Groundwater monitoring has been conducted at the site and groundwater quality has been degraded.” The discharge is not in compliance with the previous WDRs, CDO No. R5-2003-0125 or the Basin Plan and therefore, the Regional Board may not exempt the discharge from Title 27 requirements.

2. **The proposed WDR authorizes expansion of the waste discharge system including allowing construction of new waste ponds without compliance with CEQA and contrary to the Antidegradation Policy (Resolution 68-16). In addition, the Discharger engaged in illicit construction of wastewater ponds without authorization from the Regional Board.**

The Discharger has installed a new 8.3-acre tailwater/wastewater collection pond, which was constructed in the land application area. The pond was constructed without CEQA documentation. While the record indicates that the pond was constructed without input from Regional Water Board staff; the record also shows that the Regional Board is aware that it has been constructed and that the facility is engaged in an expansion project that has the potential to

impact the environment. The pond is not lined and will receive designated waste as defined by CWC Section 13173. Therefore, the pond is not be protective of groundwater quality and does not comply with the Antidegradation Policy (Resolution 68-16). Groundwater quality underlying the site has been degraded for electrical conductivity (EC), total dissolved solids (TDS), calcium, magnesium, sodium, sulfate, chloride, hardness, bicarbonate, and alkalinity. Use of an unlined pond accepting designated waste will likely result in continued degradation of groundwater quality. The Discharger must comply with CEQA and because of the potential for water quality degradation complete an Environmental Impact Report (EIR).

In addition to the expansion, the proposed WDR allows waste with acidic conditions (pH 4.5) to be discharged to the ponds and land disposal area, which is a significant change to the quality of waste from previous and the existing WDRs. The newly allowable low pH will potentially liberate additional pollutant loads from the soil structure and present a greater threat to groundwater quality. The lower pH may also lead to poor pond health threatening the microorganisms that are utilized to breakdown and “treat” waste and may lead to septic (low dissolved oxygen) conditions resulting in excessive odors.

The proposed WDR shows that there is no CEQA documentation for the new pond or the expansion project and no legal foundation for increase in the volume of waste that will now be acidic. The Order authorizes a “new project” for the disposal using infiltration from the ponds and allows for a significant increase in waste loading discharged at the sites for which CEQA documentation was not consider. CPRC Section 21065 defines "Project" as an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following:

- a. An activity directly undertaken by any public agency.
- b. An activity undertaken by a person which is supported, in whole or in part through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
- c. An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

The discharge of wastewater to land using infiltration via the new ponds is a project for which the Regional Board has made a discretionary decision in that the Order has been proposed for adoption. The Discharger’s wastewater disposal using infiltration basins has potential significant impacts to the environment as the previous disposal has already degraded and/or polluted groundwater and as such must comply with CEQA regulations.

It is unknown from the proposed WDR whether the County of San Joaquin has issued a use permit and as a public agency and are responsible for the CEQA documentation. CPRC Section 21001.1 states, “projects to be carried out by public agencies be subject to the same level of review and consideration under this division as that of private projects required to be approved by public agencies.” In short, the Regional Board must now ensure that CEQA is satisfied before allowing the project to be utilized for waste disposal.

CCR Title 14 Section 15050 states, “Where a project is to be carried out or approved by more than one public agency, one public agency shall be responsible for preparing an EIR or Negative Declaration for the project. This agency shall be called the Lead Agency.” The Regional Board is the first public agency to undertake an action for the “project” and has jurisdiction over the wastewater disposal site and is responsible for authorizing the increase loading and change in the disposal method allowing the discharge of acidic conditions at the site, and therefore, the Regional Board is the designated lead agency for the project. As discussed, the project will have significant impacts to the environment and the facility's has already polluted groundwater under the site. Therefore, an EIR must be prepared for public review. The Regional Board is acting as the “lead agency” for the Discharger's project. Since our membership is directly impacted by the new project, we request to be an interested party in the CEQA documentation process.

**3. The proposed WDR should include an Enforcement Order or require cessation of the discharge until compliance with Title 27 requirements can be achieved.**

The Regional Board’s proposed action is a revised WDR instead of taking an enforcement action for the illicit project, and recalcitrant behavior of the Discharger as required by the State Board's Enforcement Policy, the Regional Board is preparing to authorize the project without CEQA and reward a polluter with an expansion project that will exacerbate the degradation of the groundwater under the site. The State Board's Enforcement Policy indicates that a Cease and Desist Order is the most appropriate action given the evidence in the record. Moreover, the Discharger will not be able to comply with the Basin Plan in that the current discharge as already degraded groundwater and the Discharger is proposing operations that will increase TDS loadings, result in higher flows, and decrease the land application areas. The record shows (see groundwater data) that the increase discharge will result in continuing degradation and pollution and therefore, will immediately place the Discharger in violation of the Basin Plan and the proposed WDR.

Discharger Specification No. B.3. States, “Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the CWC, Section 13050.” The record clearly shows that the discharge has already created a condition of nuisance and pollution and that the expansion will only exacerbate the pollution. In addition, Groundwater limitation No. F1 states, in part that “The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality...” The downgradient data shows that the discharge has already caused the groundwater to exceed the background water quality. The Discharger has discharged waste in violation of the previous Order (WDRs Order No. 91-223) and CDO No. R5-2003-0125 and will not be able to fully comply with proposed WDR. The proposed WDR and lack of an enforcement order that contains a schedule to cleanup and abate the pollution sets the Discharger up for immediate failure.

California Water Code (CWC) Section 13000 states, in part, that Legislature declared “...that the quality of all the waters of the state shall be protected for use and enjoyment by the people of the state.” CWC Section 13000 shows the Legislature intent that “state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation originating inside or outside the boundaries of the state;” In order fulfill the Legislature intent to



protect water quality, the State Water Resources Control Board adopted the Water Quality Enforcement Policy (Enforcement Policy) February 2002.

The Enforcement Policy states, “The primary goal of this Enforcement Policy is to create a framework for identifying and investigating instances of noncompliance, for taking enforcement actions that are appropriate in relation to the nature and severity of the violation, and for prioritizing enforcement resources to achieve maximum environmental benefits. Toward that end, it is the intent of the SWRCB that the RWQCBs operate within the framework provided by this Policy.”

The Enforcement Policy, page 13, identifies groundwater pollution as a priority violation for which the appropriate enforcement action includes an administrative civil liability order. The proposed WDR indicates, Informational sheet page 6, that the existing waste application has polluted the underlying groundwater. However, the proposed WDR takes no enforcement action for the groundwater pollution and does not require the Discharger to perform any cleanup activities. Instead, the Order authorizes the WWTP expansion project that will increase the existing capacity, take no action for the unauthorized construction of new unlined ponds, and changes disposal methods to allow the application of acidic waste, all of which will exacerbate the pollution of the underlying groundwater. The proposed WDR completely subverts the Legislative intent for water quality protection through pollution prevention into that of pollution permission that rewards those that cause degradation. It is inappropriate for the Regional Board to bring this Order forward without first taking an enforcement action that assesses penalties for the Discharger’s pollution.

**4. The Regional Board has failed to notify downgradient and sidegradient property owners regarding their status as a designated party. The proposed WDR fails to require testing of domestic wells to determine the health impacts to the public.**

The proposed WDR Finding Nos. 42, 43, 44, and 45 including Attachment D indicates that the discharge is not restricted to the Discharger property. In particular, Finding No. 45 indicates that the waste discharged to the land application area is also reaching G&H Dairy's property, which is situated immediately downgradient of the discharge from the land application area.

Property owners in the vicinity of the facility are directly affected by the discharge in that the groundwater degradation extends beyond the Discharger's property boundaries. The proposed WDR does not address control or clean up measures to limit and control the plume of contaminated groundwater. The Regional Board cannot argue that the party owners in the vicinity of the facility are a designated party since the discharge of contaminated groundwater has a direct impact on their property including its value. The Regional Board has not undertaken testing of domestic wells around the facility to determine if the degradation shown in the record is impacting the health of the public. The Basin Plan designates the beneficial use of the groundwater for domestic and municipal uses; however, the proposed WDR fails to protect the public and violates the Basin Plan by allowing addition pollution. The Regional Board authorization of the expansion of the facility's discharge without first assessing the impacts of the contamination caused by the Discharger, without performing a risk analysis of the impact to the

public health, and evaluation of the damage to the public resources is a violation of the public trust doctrine.

**5. The proposed WDR fails to support the Effluent Limitation for pH of 4.5 and must be revised to an appropriate level based on sound science and engineering practices.**

The Effluent limitation No.3 states “Wastewater discharged to the LAA shall not have a pH of less than 4.5 or greater than 10.0.” However, the record does not contain any information that justifies the acidic discharge. The proposed WDR does not address the potential impacts associated from oxidation/reduction potential related to a waste discharge of pH 4.5. The acidic condition may not only mobilize constituents within the waste but also in the soil matrix. The proposed WDR is silent on the constituents found in the soil. For example, if small quantity of arsenic are present in the soil. It is known that soils in eastern San Joaquin County may contain small quantity of arsenic. This constituent is generally held within the soil matrix and does not under natural conditions impact the groundwater. However, a change to the pH is known to release arsenic and other constituents from the soil. The solubility of iron is also significantly impacted by pH. The Information Sheet, page 6, states, in part, “Under conditions of low soil pH (below 5), iron and manganese compounds in the soil can solubilize and leach into groundwater. “ The discharge of acidic waste to the pond is not even mentioned in the proposed WDR. Finally, the low pH may impact the crop growth and thus reduce waste uptake. For example, it is well known that alfalfa hay is one of the most sensitive forages to low soil pH and requires a soil pH (salt extraction pH) above 6.0. The proposed WDR is silent the impacts of the discharge with a low pH to the pond and crops and does not adequately describe the soil conditions at the land application to justify the acidic discharge.

**6. The proposed WDR fails include a dissolved oxygen (DO) limitation for the wastewater/tailwater ponds and must be revised to include a DO limitation of 1.0 mg/l for the ponds.**

State Board's Water Quality Order No. 2003-0014 upheld the Regional Board's requirement for wastewater ponds to maintain a DO concentration of at least 1.0 mg/l. The basis of the DO limitation in the ponds is the Basin Plan's narrative objective for nuisance control. The requirement to maintain 1.0 mg/l of DO or more in wastewater ponds has been a practice in the Central Valley for more than 25-years based on empirical evidence gathered during recurring nuisance problems created by poorly operated municipal pond systems throughout the valley. The 1.0 mg/l DO limit is also generally accepted by both regulators and the regulated community as a threshold to gauge the adequacy of oxygen concentration in aerobic pond systems: when the DO goes below 1.0 mg/l the pond could potentially have an odor problem; when the DO is above 1.0 mg/l, the pond would not have an odor problem. The proposed WDR indicates that the ponds will receive nutrient rich wastewater from winery operation, which at least periodically will also be acidic. The wastewater runoff and commingled stormwater discharged to the ponds has the potential to create nuisance odors. Therefore, the Regional Board's record contains adequate evidence supporting the DO requirement of 1.0 mg/l.

**7. The proposed WDR contains no antidegradation analysis and does not comply with the requirements of the State Board's Antidegradation Policy (Resolution 68-16) and California Water Code (CWC) Sections 13146 and 13247.**

CWC Sections 13146 and 13247 require that the Board in carrying out activities which affect water quality shall comply with state policy for water quality control unless otherwise directed by statute, in which case they shall indicate to the State Board in writing their authority for not complying with such policy. The State Board has adopted the Antidegradation Policy (Resolution 68-16), which the Regional Board has incorporated into its Basin Plan. The Regional Board is required by the CWC to comply with the Antidegradation Policy. Actions that trigger use of the antidegradation policy include issuance, re-issuance, and modification of NPDES and Section 404 permits and waste discharge requirements, waiver of waste discharge requirements, issuance of variances, relocation of discharges, issuance of cleanup and abatement orders, increases in discharges due to industrial production and/or municipal growth and/or other sources, exceptions from otherwise applicable water quality objectives, etc.

Even a minimal antidegradation analysis would require an examination of: 1) existing applicable water quality standards; 2) ambient conditions in groundwater compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability; 5) best practicable treatment and control (BPTC); 6) comparison of the proposed increased loadings relative to other sources; and 7) an assessment of the significance of changes in ambient water quality. A minimal antidegradation analysis must also analyze whether: 1) such degradation is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) the highest statutory and regulatory requirements and best management practices for pollution control are achieved; and 4) resulting water quality is adequate to protect and maintain existing beneficial uses. A BPTC technology analysis must be done on an individual constituent basis.

There simply is no antidegradation analysis in the proposed WDR. The proposed WDR postpones the required antidegradation analysis to 2010 and as such there is no legal foundation on which the discharge is being authorized. Conclusory, unsupported and undocumented statements cannot serve in lieu of a legally required antidegradation analysis. Moreover, the proposed WDR and CDO R5-2003-0125 show that the discharge has degraded groundwater and that the discharge does not comply with the Basin Plan or Antidegradation Policy No. 68-16. Since numerous facilities in the Central Valley comply with Title 27 regulations and do not degrade groundwater the Regional Board cannot claim that the discharge is BPTC. Therefore, the Discharger's facility expansion project cannot be authorized in the proposed WDR.

Thank you for considering these comments. If you have questions or require clarification, please don't hesitate to contact us.

Sincerely,



Bill Jennings, Executive Director  
California Sportfishing Protection Alliance