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25 June 2012

Ms. Katie Carpenter
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Central Valley Region
California Regional Water Quality Control Board
1685 E Street
Fresno, CA 93706

Subject: Tentative Waste Discharge Requirements Comments
The Wine Group Fresno (Golden State Vintners)
K/J 030120*26

Dear Katie:

This letter is submitted by Kennedy/Jenks Consultants (Kennedy/Jenks) on behalf of The Wine Group (TWG) for the Golden State Vintners (GSV) Fresno Winery in response to the Tentative Waste Discharge Requirements (WDR) that were issued for public comment on 24 May 2012. Comments on specific items of the Tentative WDR, associated Monitoring and Reporting Program and Information Sheet are provided below. Our comments for each item are organized by first restating the item as included in the Tentative WDR, then discussing our comments on the item and then providing suggested alternative language for the item.

Waste Discharge Requirements

Finding 3: "In addition, the Discharger has reconfigured its treatment system to add a rotary screen to remove solids from the wastewater and bypassed the wastewater holding pond to tie directly into the irrigation system. The holding pond was closed in October 2010."

Comment: The screen that was installed at the Fresno winery is a parabolic screen. To provide operational flexibility for the winery, it is proposed to delete the reference to the specific type of screen and simply indicate that the wastewater is screened. In addition, wastewater discharge to the holding pond was discontinued in October 2010 but the pond was not closed. All wastewater lines from the winery to the pond have been capped but the pond continues to have the ability to receive Fresno Irrigation District water. Furthermore, The WDR requires an evaluation of wastewater storage needs that may result in the pond being brought back into service. Therefore, the following language is proposed for Finding 3:

"In addition, the Discharger has reconfigured its treatment system to add a screen to remove solids from the wastewater and bypassed the wastewater holding pond to tie directly into the irrigation system. Wastewater discharge to the holding pond was discontinued in October 2010. All wastewater lines from the winery to the pond have been capped. The pond has the ability to receive Fresno Irrigation District water."

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Finding 10: "After treatment, the wastewater is pumped directly into the irrigation system. According to the Discharger, the winery wastewater is blended with irrigation water at a 4:1 ratio (four parts irrigation water to one part wastewater) and spread between the vineyard rows via flood irrigation. Supplemental irrigation water to meet crop demand is supplied via drip irrigation."

Comment: The 4:1 blending ratio is an approximation based on pump capacities. Therefore, Finding 10 should be revised to indicate the 4:1 ratio is approximate, as follows:

"After treatment, the wastewater is pumped directly into the irrigation system. According to the Discharger, the winery wastewater is blended with irrigation water at approximately a 4:1 ratio (four parts irrigation water to one part wastewater) and spread between the vineyard rows via flood irrigation. Supplemental irrigation water to meet crop demand is supplied via drip irrigation."

Finding 12: "According to the RWD, winery operation will occur year round. With closure of the holding pond the Discharger no longer has the capacity to store wastewater during periods of wet weather. The Water Balance submitted with the RWD addresses the need to continue discharge during the wet weather by increasing the daily application area to minimize the potential to cause oversaturated conditions. The RWD concludes that expansion of the daily application area during wet weather will result in an insignificant increase in hydraulic loading rates. This Order prohibits irrigation with treated wastewater within 24 hours prior to or following a storm event or when soils become oversaturated and requires the Discharger to submit a technical report including a revised water balance to provide an appropriate plan to accommodate wastewater flow and seasonal precipitation with a time schedule to provide adequate wet weather storage if required."

Comment: As indicated in the comments on Finding 4, the holding pond has not been closed but rather wastewater discharge to the pond has been discontinued. In addition, the prohibition of irrigation within 24 hours of a storm event is unnecessary when Use Area Specification C.2, C.7 and C.10 are also required.

- Use Area Specification C.2 requires that the perimeter of the Use Area be graded to prevent runoff onto adjacent properties.
- Use Area Specification C. 7 prohibits wastewater from being discharged to the Use Area in a manner that causes wastewater to stand for greater than 24 hours.
- Use Area Specification C.10 requires that the Use Area be managed to prevent breeding of mosquitoes and specifically that all applied irrigation water must infiltrate completely within 24 hours.

Therefore, the need to prohibit irrigation within 24 hours of a storm event is unclear given the WDR also prohibits runoff, prohibits standing water for more than 24 hours and prohibits mosquito breeding by requiring irrigation water to infiltrate within 24 hours.

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It is also noted that prohibiting irrigation within 24 hours of a storm event means that discharge would be prohibited for at least two days. If back to back storms occur, discharge to land could be prohibited for numerous days. The winery is not capable of ceasing discharge for several days due to the nature of its operations. Cleaning and sanitizing activities associated with wine processing occur on a daily basis. In order to cease wastewater discharge the winery would have to shut down until wastewater discharge could resume. Furthermore, Provision 13 of the WDR requires the Discharger to conduct a water balance study, taking into account wastewater flow and 100 year annual precipitation, to evaluate whether wastewater storage is needed in order to meet the requirements of the WDR (including the prohibition to generate runoff and standing water). Therefore, TWG requests that the prohibition to discharge to the Use Area within 24 hours of a storm event be removed from the WDR. The proposed language for Finding 12 is as follows and proposed language for Use Area Specification C.8 is provided on Page 4 of this letter:

“According to the RWD, winery operation will occur year round. By discontinuing discharge to the wastewater pond the Discharger no longer has the capacity to store wastewater during periods of wet weather. The Water Balance submitted with the RWD addresses the need to continue discharge during the wet weather by increasing the daily application area to minimize the potential to cause oversaturated conditions. The RWD concludes that expansion of the daily application area during wet weather will result in an insignificant increase in hydraulic loading rates. This Order prohibits irrigation with treated wastewater when soils become oversaturated and requires the Discharger to submit a technical report including a revised water balance to provide an appropriate plan to accommodate wastewater flow and seasonal precipitation with a time schedule to provide adequate wet weather storage, if required.”

Finding 38: “Groundwater Limitations are set at the naturally occurring background water quality or applicable limits...”

Comment: Reference to “naturally occurring background water quality” is ambiguous Therefore, the following language is proposed for the first paragraph of Finding 38:

“Groundwater Limitations are set at the background water quality or applicable limits...”

Use Area Specification C.6: “Application of waste constituents shall be at reasonable agronomic rates to preclude creation of nuisance and degradation of groundwater, considering the crop, soil, climate, and irrigation management. The annual nutritive loading to the Use Area, including the nutritive value of organic and chemical fertilizers and of the wastewater, shall not exceed the annual crop demand.”

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Comment: The use of the term "nutritive" is unclear. Use Area Specification C.6 should be modified to be consistent with language in Provision 14, which requires preparation of a Wastewater and Nutrient Management Plan. The following language is proposed for Use Area Specification C.6:

"Application of waste constituents shall be at reasonable agronomic rates to preclude creation of nuisance conditions and/or degradation of groundwater, considering the crop, soil, climate, and irrigation management. The annual nutrient loading to the Use Area, including organic and chemical fertilizers and wastewater, shall not exceed the annual agronomic rate for the crop."

Use Area Specification C.8: "Irrigation with wastewater shall not be performed within 24 hours of a storm event of measurable precipitation or when soils become saturated."

Comment: As indicated in the comments on Finding 12, the prohibition of irrigation within 24 hours of a storm event is unnecessary given the other Use Area Specification C.2, C.7 and C.10. The following language is proposed for Use Area Specification C.8:

"Irrigation with wastewater shall be performed in a manner to preclude runoff of wastewater from the land application area to adjacent property during saturated conditions."

Groundwater Limitations E.1.a: "Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:"

Comment: As mentioned in the comments on Finding 38, use of the term "natural" is ambiguous. The following language is proposed for Groundwater Limitations E.1.a:

"Containing constituent concentrations in excess of the concentrations specified below or background quality, whichever is greater:"

Provision F.10: "The Discharge shall maintain and operate surface impoundments sufficiently to protect the integrity of containment levees and prevent overtopping or overflows. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard."

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Comment: We recommend a clarification to Provision F.10 that the permanent marker be installed if the pond is used for wastewater storage. The following language is recommended for Provision F.10:

"... As a means of management and to discern compliance with this Provision, if the pond is used for wastewater storage the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard."

Provision F.14: "The Discharger shall submit a Wastewater and Nutrient Management Plan for the Use Area. At a minimum the Plan must include procedures for daily monitoring of the Winery's operations and land application area, an action plan to deal with objectionable odors and/or nuisance conditions, a discussion on blending of wastewater and supplemental irrigation water, supporting data and calculations for monthly and annual water and nutrient balances, and management practices that will ensure wastewater, irrigation water, and commercial fertilizers are applied at agronomic rates."

Comment: We propose a clarification to Provision F.14 indicating that the calculations for the monthly and annual water nutrient balances will ensure that nutrients from wastewater, irrigation water and fertilizers are applied at agronomic rates. The following specific language is proposed:

"... management practices that will ensure that nutrients from wastewater, irrigation water, and commercial fertilizers are applied at agronomic rates."

Provision F.15: "The Discharger shall submit a Salinity Control Plan, with salinity source reduction goals and an implementation time schedule for Executive Officer approval. The control plan should identify any additional methods that could be used to further reduce the salinity of the discharge to the maximum extent feasible, include an estimate on load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement various elements in the salinity control plan. The Discharger shall implement the plan in accordance with the approved schedule."

Comment: TWG recognizes the need to control the salinity of its discharge and requests to modify the language of Provision F.15 to require identification of methods that could be used to control the salinity rather than reduce the salinity. The Basin Plan references use of best management practices that control (not reduce) inorganic dissolved solids to the maximum extent feasible. The following specific language is proposed for Provision F.15:

"The Discharger shall submit a Salinity Control Plan, with salinity source reduction goals and an implementation time schedule for Executive Officer approval. The control plan should identify any additional methods that could be used to further control the salinity of the discharge to the maximum extent feasible..."

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Provision F.16: "Groundwater Tasks...The Discharger shall comply with the following compliance schedule in implementing the work required by this Provision:

<u>Task</u>	<u>Compliance Date</u>
a Submit Work Plan and Time Schedule for monitoring well installation.	<90 Days> following adoption of the Order
b Commence installation of additional monitoring wells	<30 Days> following approval of Work Plan"

Comment: Provision 16 requires the Discharger to install and maintain a groundwater monitoring network in coordination with the Fresno-Clovis WWTF. GSV does not currently have access to information on the Fresno-Clovis WWTF and will therefore need to request the relevant information and will need time to review and evaluate the information. Therefore, GSV requests an extension of the Compliance Date for Task (a) to 120 days following adoption of the Order. In addition, the Work Plan required by Task (a) is to include a Time Schedule for monitoring well installation and therefore the requirement for Task (b) should be to commence implementation of the Work Plan 30 days following approval of the Work Plan. The following language is proposed for Provision F.16:

The Discharger shall comply with the following compliance schedule in implementing the work required by this Provision:

<u>Task</u>	<u>Compliance Date</u>
a <i>Submit Work Plan and Time Schedule for monitoring well installation.</i>	<i><120 Days> following adoption of the Order</i>
b <i>Commence implementation of the Work Plan</i>	<i><30 Days> following approval of Work Plan"</i>

Monitoring and Reporting Program

General Comment: The Effluent Monitoring and Groundwater Monitoring tables list general minerals as monitoring requirements. The MRP would be easier to follow if the list of general minerals is provided as footnotes to each monitoring table in addition to being listed in the glossary.

Groundwater Monitoring: "The Discharger shall monitor all wells in its Groundwater Monitoring Well Network, and any subsequent additional wells, for the following:"

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Comment: The groundwater monitoring well network may include monitoring wells owned and controlled by the Fresno-Clovis WWTF. It is conceivable that GSV may not have full access to monitoring wells owned by the Fresno-Clovis WWTF. It is proposed that the Discharger be required to monitor the wells proposed in the Work Plan and Time Schedule for Monitoring Well Installation required by Provision F.12 of the WDR. The following language is proposed for the Groundwater Monitoring requirement:

"The Discharger shall monitor the wells installed in accordance with the Work Plan and Time Schedule for Monitoring Well Installation, and any subsequent additional wells, for the following:"

Source Water Monitoring: "For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents."

Comment: It is our understanding that the CRWQCB is interested in the flow weighted average concentration of water supplied to the winery facility but is also interested in characterization of the various sources of water used for supplemental irrigation in the Use Area. The following language is proposed for the Source Water Monitoring requirement:

"The Discharger shall monitor all sources (either well or surface water supply) to the winery facility and the land application area for EC and general minerals according to the following table. Measurements for EC supplied to the facility shall be a flow weighted average concentration based on different sources supplied to the facility."

Wastewater reporting Item 3: "A summary of the notations made in the pond monitoring log during each quarter. The entire contents of the log do not need to be submitted."

Comment: Results of the study required by Provision 13 of the WDR may preclude the need for a pond. Therefore, Wastewater reporting item 3 may not be applicable. The language for Wastewater Reporting Item 3 is proposed as follows:

"A summary of the notations made in the pond monitoring log during each quarter, if applicable. The entire contents of the log do not need to be submitted."

Solids Reporting Item 1: "Annual production totals in dry tons or cubic yards."

Comment: We propose a clarification to the solids reporting requirement indicating that solids such as trash and recyclables do not need to be reported. The following language is proposed for Solids Reporting Item 1:

"Annual production totals for solids (excluding general trash and recyclables) in dry tons or cubic yards."

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Glossary

24-Hour Composite: "Samples shall be a flow-proportioned composite consisting of at least eight aliquots"

Comment: Flow-proportioned composite sampling may be difficult given the hydraulic setup of the wastewater system. Wastewater discharge at the winery is not expected to vary significantly over the course of a day. Therefore, it is proposed that 24-hour composite samples represent equal aliquots collected at least every hour.

"Samples shall be a composite consisting of aliquots collected at least every hour"

Information Sheet

Comment: The Information Sheet provides supporting information for the findings and requirements in the WDR. Our comments on Findings 3 and 10 therefore also apply to paragraphs 4 and 7, respectively.

We appreciate your consideration of our comments and request for modification of the Tentative WDR. If you have any questions regarding our comments, please contact me at 415-243-2524 or Mike Donich of GSV at (559) 286-8367.

Very truly yours,

KENNEDY/JENKS CONSULTANTS



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