



August 5, 2020

Mr. E. Joaquin Esquivel, Chair
 California State Water Resources Control Board
 1001 I Street
 Sacramento, CA 95814

RE: General Waste Discharge Requirements for Winery Process Water

Dear Chair Esquivel:

The signatories to this letter are writing to provide comments on the draft General Waste Discharge Requirements for Winery Process Water (draft Winery Order) as publicly released on July 3, 2020. We appreciate the opportunity to provide input on this important proposal and stand ready to continue discussions on the provisions upon which we are proposing changes.

Wine Institute (WI) is the public policy advocacy association of California wineries, representing over 1,000 wineries and affiliated businesses around the state. The co-signatories to these comments include state and regional associations representing wineries, vintners, and vineyard owners and managers as well as Farm Bureaus representing farmers throughout California.

California's wineries are committed to the goal of protecting California's water quality, have been working collaboratively with the State Water Resources Control Board (State Board), and plan to continue this collaborative effort with the State Board to develop a Winery Order that protects water quality while balancing economic impacts. This collaborative process does require a commitment of time to consider the potential impacts of each requirement included in the draft Winery Order and we respectfully ask that this process not be rushed simply because a significant amount of time has passed since the process began, but instead invest the necessary time to get the right result; one in which both the State Board and wineries can be proud.

It is with this in mind that we would like to point out the limited time for review of the long and technical draft Winery Order. The 30 days provided to review and comment on the document, unfortunately, did not allow for preparation of as much technical background material as we would have preferred. We respectfully request additional opportunities to provide this technical background information to help inform the creation of a final Winery Order.

Background

We appreciate the recognition of the significant role that wineries play in California's economy as documented in reference to the economic impact and employee figures mentioned in paragraph 1 of the Findings. However, it is important to recognize the difference between jobs created and supported by wineries and the number of employees directly employed at wineries. According to the Bureau of Labor Statistics, wineries directly employed 36,924 people in 2017¹. Additionally, according to the US Census Bureau, about half of California wineries don't have any employees (i.e., they are so small that they are operated by a sole proprietor or married couple), 600 have fewer than 5 employees, and another 300 have between 5-9 employees. These wineries have very limited capacity to meet the monitoring and reporting requirements included in the draft Winery Order and this fact should be recognized in the document.

Further, while wineries contribute significantly to California's economy, the current economic climate in which wineries are operating should be recognized. U.S. wineries are expected to see losses of nearly \$6 billion on an annualized basis in 2020 due to the economic impacts from the

¹ Bureau of Labor Statistics 2017 (<https://www.bls.gov/opub/ted/2018/employment-in-wineries-up-153-percent-from-2001-to-2017.htm>)

COVID-19 pandemic². California wineries specifically are expected to see \$4.2 billion in losses³. These losses are expected to be most acute for smaller wineries. Wineries producing less than 50,000 cases (a 50,000-case winery is estimated to produce 594,500 gallons of process water using a 5:1 ratio) are expected to see revenue losses of between 36-66 percent. These smaller wineries are seeing significant business losses due to the pandemic and are also being asked to undertake significant investments and ongoing costs to comply with the draft Winery Order at a time they can least afford it.

Paragraph 3 of the Findings lists the number of wineries currently regulated by regional boards through individual actions or general orders. However, there is no recognition of the wineries in Napa County that are regulated directly by the County through an MOU with the San Francisco Bay Regional Water Quality Control Board. Napa County currently permits 216 wineries, of which 187 have winery process water treatment systems subject to the draft Winery Order. These wineries would like to continue their working relationship with Napa County to manage their process water treatment systems rather than entering into an entirely new permitting system with the State Board. We urge you to allow for a simplified local agency permitting system that will allow this longstanding regulatory program to continue.

Applicability

Paragraph 12 of the Findings states that the burden and cost of “the technical reports required by this General Order...are reasonable.” However, there is no further discussion explaining how it was determined that the costs of these requirements are reasonable. Based on information we’ve gathered, the costs of these programs do not appear to be reasonable, especially for smaller wineries.

For example, Tier 2 wineries have approximately 6-7 winery employees dedicated to the production of wine. These wineries are small businesses and not large enough to justify compliance departments. Additionally, employees responsible for the monitoring require a special skillset, and therefore need to be compensated commensurately. Wineries estimate that the level of monitoring required by the draft Winery Order would take approximately one-quarter to one-third full time equivalent. This would be even greater for Tier 3 and 4 wineries.

For a winery with 6 to 7 employees, this correlates to an average of 3.5 to 7 percent of the total costs of wages, or between \$21,000 to \$35,000 annually. These costs are only for the monitoring requirements included in the draft Winery Order. They do not include any investment costs necessary to upgrade systems to meet other standards proposed in the draft Winery Order.

The draft Winery Order is incredibly complex, and we anticipate that wineries will need to engage an expert consultant to assist with compliance. The estimated costs of these consulting services range from \$20,000 to \$40,000 per year.

² <https://wineinstitute.org/press-releases/us-wine-losses-from-covid-19-could-reach-5-94-billion/>

³ <https://www.winebusiness.com/news/?go=getArticle&dataId=233088>

For example, for a Tier 2 winery, it is estimated that the total costs include \$11,000 to \$16,000 for testing and monitoring, \$21,000 to \$35,000 for wages, and \$20,000 to \$40,000 per year for a consultant. The annual costs of testing and monitoring a Tier 2 winery would be between \$52,000 to \$91,000 (See Appendix A). These costs only account for testing and monitoring – not any resulting change in practice, nor infrastructure capital costs that in many cases will be triggered by the draft Winery Order. Since these costs are for a Tier 2 winery, they do not include the costs needed to complete additional technical reports or install groundwater monitoring wells, etc. These additional costs warrant a close look at the monitoring and reporting requirements to justify the benefits of those requirements. Together, the draft Winery Order's monitoring and reporting protocols cause an unreasonable, excessive, and undue burden on small businesses⁴.

Due to the draft Winery Order's imposition of its burdensome monitoring and reporting requirements statewide – without regard to local water quality issues – the draft Winery Order has not established a reasonable relationship between its benefits and burdens. Without significant tailoring and reduction of the proposed requirements, many in the regulated community will see the draft Winery Order as arbitrary and capricious.

Further, as a regulatory body, we ask that you coordinate your activities with all other regulatory bodies to streamline and increase the effectiveness and efficiency of all regulations. This is important not just for actions made by different regulatory agencies, but also programs run by the State Board and regional water quality control boards (regional water boards). Certain requirements within the draft Winery Order are duplicative or conflict with existing statewide and regional regulatory requirements, including but not limited to, regional water board irrigated lands regulatory programs (ILRP) resulting in increased costs and unnecessary regulatory burdens. There should be coordination between the multiple programs administered by the State Board and regional water boards with which wineries are required to comply.

Part of the expected expense of the reporting requirements is the draft Winery Order's condition that reports be prepared by a professional engineer or geologist⁵. This requirement creates additional costs for wineries and raises concerns regarding the availability of professionals to complete the reports required for all wineries in a short timeframe. Instead, we recommend allowing wine industry professionals to develop solutions that individual wineries can use to improve practices that will reduce risks to water quality. For example, the California Sustainable Winegrowing Alliance is currently developing an integrated tool for winery water quality management to assist wineries in assessing the sources of high-strength wastewater and recommendations on improvements that can reduce the levels of constituents of concern found in the wastewater. Specifically, the tool is envisioned as an interactive online platform that will combine facility assessments and educational content to recommend best practices, processes, and technologies that will reduce salinity, nitrogen, and BOD in the winery process water stream. The tool will also feature targeted guidance for managing wastewater treatment/disposal systems. We request additional flexibility around the use of professional engineers and/or geologists as well as more targeted focus on what is necessary to include in the report.

⁴ See Water Code Section 13267 (b)(1) regarding reasonableness of monitoring burdens.

⁵ Salt Control Plan, pages 31 and 42, and Nitrogen Control Plan, pages 39 and 43

Additional background information on the costs of the monitoring and reporting requirements of the draft Winery Order are presented below in the *Monitoring and Reporting Requirements* section and in Appendix A.

Tiers

We appreciate the decision to propose a tier structure based off a winery's process water discharge volume, rather than the number of cases a winery produces. This creates a positive incentive for wineries to continue to work towards reducing the volume of process water they create.

We appreciate the inclusion of a de minimis tier within the draft Winery Order, below which wineries would not be subject to the provisions of the permit. This avoids creating additional burdens on very small wineries that do not pose a threat to water quality. However, despite discussions of this issue with State Board staff, the current threshold remains very low and we request that the de minimis threshold be increased. This request is based on a technical analysis (see Appendix B) of the potential threats posed by small wineries to water quality. This analysis supports a de minimis threshold of 29,500 gallons of wastewater produced annually. Further, we recommend a low-threat tier that would include wineries producing between 29,501 and 47,500 gallons of wastewater annually. This low-threat tier would include wineries that have at least 0.25 acres of land available on which to apply the process water and implement a set of best management practices to prevent impacts to water quality.

In addition to increasing the de minimis threshold for small wineries, we believe it is necessary to restructure the tiers in the draft Winery Order. There appears to be an expectation that larger wineries are all operating in a similar fashion, but it is important to recognize the significant differences in both operations and economics of wineries at the bottom end of tier 4 and the top end of tier 4. It is for this reason that we are recommending a shifting of the tier structure to better capture the structures recognized within the wine industry.

Proposed Tier Structure

Proposed Tier	Process Water (Gallons/Year)
De minimis	<29,500
Low Threat	29,501-47,500
Tier 1	47,501-500,000
Tier 2	500,001-5,000,000
Tier 3	5,000,001-10,000,000
Tier 4	10,000,001-25,000,000
Tier 5	>25,000,000

This tier structure better matches the realities of California's wine industry by capturing those wineries that are considered on the smaller end of the winery spectrum in the lower tiers of the draft Winery Order and differentiating the largest wineries into the top tiers. This restructuring also allows for greater focus on those areas where concern over impacts to water quality appears to be greatest.

We are concerned with the inclusion of stormwater in the definition of process water⁶. Many wineries cannot prevent some amount of stormwater from entering their process water streams, even with valve controls in place. Some wineries, by design collect rainwater. Older wineries, in response to regulations requiring Stormwater Pollution Prevention Plans, intentionally capture and divert rainwater into wastewater systems. Including any stormwater that comes into contact with process water disadvantages wineries located in areas with higher rainfall. The total volume of water when it is composed of process water diluted by stormwater poses lower risks to water quality than high-strength winery process water that has had no dilution by stormwater. This differentiation should be recognized in the tier structure, by excluding stormwater from the calculation of a winery's tier. Wineries can use a water balance or other reasonable calculations to determine the amount of flow that originates as process water.

In addition to the tier structure, the draft Winery Order lacks clarity regarding the ability of wineries to capture some of their process water for treatment off-site. There are some wineries that would like the ability to manage compliance costs by limiting the process water that is treated on-site. The draft Winery Order does not provide clarity on whether this practice would be authorized. We request that it be allowed as a potential tool for process water management at wineries.

Process Water Characterization

The draft Winery Order includes a table to illustrate winery process water characteristics. This table was derived from data gathered at two very large wineries in the Central Valley. The figures included in the table are not meant to be representative of winery process water at wineries of different sizes or in different regions. One of the wineries sampled for this data also included stillage, which is not covered by the draft Winery Order. While the table does include a footnote to specify that conditions at other wineries will vary, we believe additional disclaimers are necessary to point out that the figures are not representative of California's wineries covered under the draft Winery Order.

Paragraph 23 of the Findings states that "process water has high concentrations of ammonia..." however there is no mention of the fact that nitrogen levels are not consistent throughout the year. The statement included in paragraph 23 leads one to believe that nitrogen levels are high at all times. We request that this be clarified to point out that there are times when nitrogen levels may be high (e.g., during crush), but other times when they are very low. Based upon a winery's treatment system, nitrogen levels can be controlled. Wine Institute has reviewed lab reports from member wineries that have been submitted to regional boards documenting low nitrogen levels in treatment ponds, which illustrate the effectiveness of these treatment systems.

⁶ Draft Winery Order Page 16, Paragraph 52

Ponds

We appreciate the changes that were made to the pond provisions from earlier drafts, however we have some remaining concerns around pond lining and leak detection requirements for ponds that are not used primarily for process water, but do contain some process water. These ponds do not create water quality concerns based on the small amount of process water they contain as compared to ‘fresh’ water. Unfortunately, the draft Winery Order treats all ponds with any amount of process water the same. However, there are a wide variety of ponds at wineries that may contain process water but pose vastly different potential risks to water quality. In addition to primary treatment ponds, wineries may also have ponds used for irrigation, fire control, frost protection, and aesthetic purposes. These ponds may contain no process water, or highly treated water with low concentrations of constituents of concern, at certain times of the year and may contain a small percentage of process water at other times of the year. Wineries should have the flexibility to manage ponds with small amounts of process water without the need to meet the same standards as are required for their primary treatment ponds. Specifically, we recommend that wineries with ponds whose purpose is not for primary treatment be allowed to request an exemption from the liner and leak evaluation requirements. The regional board should be given the authority to authorize this exemption (or designate liner and leak requirements as unnecessary) based on technical documentation provided by the winery.

The need to allow for flexibility for ponds whose primary purpose is not to hold process water is illustrated by the cost to install a liner. As an example, one Mendocino County winery installed a liner on a 2.5-acre foot pond in 2018. The pond was drained in April and the new liner and infrastructure were in place by the end of September. This means the pond was offline for almost a full farming/winery cycle. The cost of this process was just under \$120,000 or roughly \$48,000 per acre foot of storage. Pricing can become more efficient for larger ponds; however this is a realistic cost analysis for smaller ponds that are used in Mendocino County.

Additionally, the requirement to leak test ponds every five years is likely to create a challenge of capacity within the industry. The ponds will need to be empty to conduct a leak test, which means wineries will want this activity to occur immediately prior to crush. Has the State Board investigated if there are enough vendors available to test winery ponds subject to the draft Winery Order requirements?

Land Application

Excessive nitrogen application is a recognized water quality concern and there have been extensive efforts to reduce situations of overapplication of nitrogen. Paragraph 33 of the Findings outlines the ways in which nitrogen used in agriculture can create water quality risks. However, the paragraph neglects to recognize the low rates of nitrogen fertilizer applied to winegrapes. Fertilization Guidelines⁷ developed in collaboration between UC Davis and the California Department of Food and Agriculture recommend nitrogen application rates for winegrapes of between 10-40 pounds of nitrogen per acre depending on vineyard condition and

⁷ <http://geisseler.ucdavis.edu/Guidelines/Grapevines.html> (Accessed July 27, 2020)

soil type. It is in a viticulturalist's best interest to follow these guidelines and to keep within these nitrogen rates for two reasons. First, excess nitrogen causes grapes to lose quality for winemaking and, second, excess nitrogen applications add unnecessary costs. This low nitrogen application rate creates a much lower risk to water quality and should be recognized in the draft Winery Order.

Wineries with associated vineyards are subject to regional ILRP. These programs have, or will have once they are updated, extensive irrigation and nitrogen requirements including Irrigation and Nitrogen Management Plans following the precedent adopted under the East San Joaquin Order (Waste Discharge Requirements General Order for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group). Significant effort has gone into creating these precedential nitrogen requirements, groundwater monitoring required under ILRPs, as well as implementation of groundwater management plans. These efforts provide significant protections for groundwater and should be recognized and coordinated with the draft Winery Order.

These requirements are meant to protect water quality from the over application of nitrogen to croplands. The draft Winery Order also includes requirements for the land application of process water on irrigated crop lands associated with wineries subject to the draft Winery Order. We recommend that the draft Winery Order recognize the protective requirements provided by the ILRPs, utilize that reported information, and eliminate new requirements for additional monitoring and reporting in situations where nitrogen levels of process water are below the nutrient requirements of vineyards. This information is already being gathered through the ILRP and is available to the State Board and regional water boards.

It is important for the draft Winery Order to recognize existing and future ILRPs to ensure that nitrogen limits are not conflicting between the two regulatory programs. For example, the draft Winery Order proposes a limit of total nitrogen based solely upon 'crop uptake.' This requirement does not recognize the differences between organic and inorganic nitrogen and ignores the soil treatment of nitrogen. It also has the potential to be duplicative or contradictory where an ILRP regulation already governs the application of nitrogen on the same land. Further, the State Board and the Agricultural Expert Panel has repeatedly rejected using crop uptake values⁸.

We recommend limiting nitrogen applications to 'agronomic rates' or existing requirements in the applicable ILRP order, whichever is stricter. If the discharge is occurring over a nitrate-impacted groundwater basin, the Regional Board may additionally limit the discharge to 'crop uptake'. We recognize this recommendation may not be applicable to all cropping systems but believe it the best approach for vineyards associated with wineries subject to the draft Winery Order. We also recommend that wineries with associated vineyards be able to self-certify that they are meeting 'agronomic rates' or applicable ILRP requirements for nitrogen application

⁸ SWRCB Order WQ 2018-0002, Waste Discharge Requirements General Order for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group, p. 37 and *Id.* at p. 38; see Conclusions of the Agricultural Expert Panel, Recommendations to the State Water Resources Control Board pertaining to the Irrigated Lands Regulatory Program (Sept. 9, 2014), available at (as of Aug. 2, 2020) (Agricultural Expert Panel Report)

following the system in place for the East San Joaquin Order. This self-certification process allows individuals to attend approved training programs for Irrigation and Nitrogen Management Plans or obtain recommendations from the Natural Resources Conservation Service or UC Cooperative Extension⁹.

Paragraph 36 of the Findings includes a statement that “wineries that generate and land apply larger volumes of process water inherently have a higher potential for groundwater degradation.” A similar statement is also made in paragraph 49. However, it is not the volume of water applied that creates the risk, it is the concentration of nitrogen in the water applied that creates the risk. Large volumes of water applied over large acreages do not inherently create a risk to groundwater quality. This differentiation should be recognized and clarified in the document to point out the source of the actual risk.

The requirement included in the draft Winery Order to sample for BOD weekly during crush and land application is onerous, expensive, and provides limited value. Outside of crush, BOD in ponds typically does not show meaningful change week-to-week, including during months when land application is occurring. Weekly sampling will be particularly challenging for small wineries with limited staff and resources available for this activity, due to the lab costs, logistical challenges of handling samples, and the burden of reporting. It should also be noted that it takes 10-days, and often longer, to get lab results of BOD samples. This is all true for both land application systems as well as subsurface systems. As a result, weekly BOD testing would provide no more actionable information than testing on a less-frequent basis. We recommend that weekly monitoring requirements be replaced with monthly monitoring requirements, and to limit those requirements to months when discharging process water to land.

The proposed instantaneous BOD limit of 300 lbs/acre is not technically supportable as a ‘hard limit’ and will be virtually impossible for some wineries to meet. Existing individual WDRs recognize this and allow for compliance flexibility by focusing on nuisance odors instead. We recommend that exceedances of 300 lbs/acre instantaneous BOD should not trigger violations, but if 300 lbs/acre instantaneous is exceeded three times in a rolling 12-month period, the executive officer of a regional board may request a ‘BOD Assessment and Management Plan.’

It is important to understand winery-specific BOD and the role that soil treatment plays in winery process water. In general, development of BOD loading limits should not be made using out of date information. For instance, the 1977 EPA report *Pollution Abatement in the Fruit and Vegetable Industry* (EPA/625/3-77/0007) reports on a series of preliminary case histories of land application based on unregulated practices without consideration of current BOD land treatment studies and technical analyses. Current studies are well summarized in available documents¹⁰.

A key management factor for winery wastewater land application is to make sure the wastewater loading and resting cycles are designed to effectively treat BOD in soil under both anoxic and

⁹ Waste Discharge Requirements General Order R5-2012-0116-09, page 31

¹⁰ Crites, Reed, and Bastian. 2000. *Land Treatment Systems for Municipal and Industrial Wastes*. McGraw Hill or Brown & Caldwell and Kennedy/Jenks. 2007. *Manual of Good Practice for Land Application of Food Processing/Rinse Water*. Prepared for the California League of Food Processors. 14 March 2007

aerobic conditions. Wineries have higher BOD concentrations during the harvest season in late summer and fall. During the crush season, the higher levels of readily degradable volatile organic acids (volatile dissolved solids) make winery wastewater BOD relatively easy to treat in soil. Following the harvest season, both wastewater generation and BOD concentrations are lower except for brief periods when specific wine making processes are conducted. These annual cycles of BOD loading allow both root zone and subsurface soils to rest so that BOD treatment capacity of the soil is maintained. Finally, it should be noted that BOD consumption in soil has been routinely measured to be at cycle-average rates of 300-500 pounds per acre per day (lb/Ac/day) during the active growing season (see footnote 6 above). Further discussion of the technical background on BOD limits is found in Appendix C.

Subsurface Disposal Systems

The draft Winery Order includes effluent limits for subsurface disposal systems (SDS). The limits proposed will be costly to meet as they are likely to require the installation of a pre-treatment system for wineries subject to effluent limits. Additionally, the draft Winery Order requires weekly monitoring of process water prior to discharge to the subsurface disposal area. This monitoring is excessive particularly for smaller wineries who are unlikely to be disposing of process water to their SDS on a weekly basis year-round. As previously discussed, the cost of weekly monitoring would be between \$52,000 and \$91,000 each year.

The draft Winery Order seems to assume that all subsurface systems function the same way; this ignores the diversity in system design. Modern subsurface systems, and particularly pressure distribution systems, have been designed to mitigate potential water quality impacts. These concepts were highlighted on the May 2020 virtual tours of wineries with subsurface dispersal areas.

To address the concerns around proper treatment of waste by subsurface systems and eliminate the need for effluent limits, we propose that existing pressure distribution systems be grandfathered into the draft Winery Order if they meet the following standards:

- a. The system has been previously permitted by the applicable local authority (e.g. county agency or Regional Board), AND
- b. System is being operated at or below design capacity, AND
- c. System is in good functioning condition, AND
- d. Design drawings/documents have been stamped by a Professional Engineer.

Imposing a single set of statewide effluent concentration limits for subsurface systems is not technically justifiable. Concentration limits at the point of discharge fail to recognize the treatment provided by subsurface systems and assume that no treatment is occurring before the discharge reaches groundwater; this is a fundamental misunderstanding of the nature of subsurface systems. Wineries should be allowed to take full advantage of surface soil treatment capacity or use a larger disposal area to lower per acre constituent loading. These are methods that are protective of groundwater, when properly managed.

We recommend that rather than creating effluent limits for SDS, that reasonable constituent monitoring be required under the draft Winery Order. This will allow the regional boards to identify SDS that pose risks to water quality, without imposing the costs of upgrading systems to meet effluent limits if a system is functioning properly and not presenting a water quality risk. In addition to requiring monitoring, the hydraulic loading limit included in the draft Winery Order will also serve to protect water quality and the combined monitoring and hydraulic loading limits will provide the necessary protections for water quality without the need for effluent limits. Properly designed SDS will effectively treat BOD and nitrogen when the hydraulic loading limits are met. Salinity concerns can be addressed through the ability of a regional board to require Salt Control Plans if flow-weighted discharge exceeds 320 mg/L of FDS above source water.

Salt Control

Salt Control Plans are required to be completed by, or under the direction of, a Registered Civil Engineer. This requirement adds unnecessary costs to wineries required to complete a Salt Control Plan. Instead, we recommend a three-step process. First, wineries that are complying with existing regional board approved SNMPs (i.e., in accordance with CV-SALTS) would be deemed in compliance with the salt control portion of the draft Winery Order. For wineries that are not operating in an area with regional board approved SNMPs, if the draft Winery Order currently required them to complete a Salt Control Plan they would first be required to meet salt management BPTCs. If after a year they are still exceeding the standards for FDS, then they would be required to complete a Salt Control Plan under the direction of a Registered Civil Engineer.

The draft Winery Order currently requires that effluent be monitored for FDS prior to treatment in a pond, LAA, or SDS. The monitoring requirements are burdensome, particularly for smaller wineries. Monitoring frequency should be reduced to focus the collection of samples on specific winery processes at risk for higher salinity discharges and allow these samples to be used to characterize winery discharges and prevent the need for ongoing sampling. Specifically, we recommend removing the ongoing FDS monitoring for lower tiers. Instead, Tier 1 should characterize FDS in discharge and submit with NOI. Sampling design should take into account differences in discharge quality and quantity throughout the year (e.g. crush and non-crush season). Tier 1 wineries should re-characterize FDS in discharge when management practices change or at 2-year intervals. If the winery is exceeding 320 mg/L + source water FDS, the regional water board may require more frequent sampling or a Salinity Control Plan.

We appreciate the recognition that the wineries in the Central Valley subject to the draft Winery Order are also subject to the Central Valley Regional Water Quality Control Board's CV-SALTS program (paragraph 89 of the Findings). However, there are some adjustments needed to the language of the draft Winery Order to fully integrate the two programs without subjecting wineries to duplicate requirements. See Appendix F with recommended language changes.

The draft Winery Order includes a prohibition on the discharge of high strength salinity waste (page 30) and requires that wineries find a proper off-site disposal location within 90-days of the issuance of the NOA. We expect wineries to comply with this provision by shipping brine off-

site for treatment. However, it is unclear if there are water treatment facilities that will accept this waste. Has the State Board confirmed that there are publicly owned treatment works that will accept this material, and that these are reasonably accessible from wineries?

Other Winery Activities not Covered by this General Order

Many wineries rely on subsurface treatment systems designed to treat both winery and domestic waste streams. The exclusion of these commingled systems from coverage under the draft Winery Order is likely to add significant costs to wineries that rely on these treatment systems by forcing them to either upgrade their systems to separate these waste streams or negotiate individual WDRs with their local agencies or regional boards. It is our understanding that the exclusion of commingled systems from coverage under the draft Winery Order is based on the presumption that the quantity and quality of domestic waste cannot sufficiently be treated by winery wastewater treatment systems. This presumption is not accurate in practice. The quantity and quality of domestic waste in commingled systems varies by winery, depending upon the activities present on-site (i.e. tasting room vs. workers' lavatory). Furthermore, some winery systems have been explicitly designed to handle a limited quantity of domestic waste, as was noted during the virtual winery tours provided in May.

We recognize the concern regarding the authorization of commingled waste treatment systems that could allow human contact with the commingled waste stream. We are not requesting that any treatment system that would allow potential human contact (i.e., process water ponds, irrigation) be covered by the draft Winery Order. Instead we would propose 'grandfathering' in commingled subsurface treatment systems where:

- a. the domestic waste stream is effectively equivalent to that of a residence or 'Commercial Food Service', as defined in the OWTS policy. Allow combined winery wastewater and domestic systems with a maximum of 900 mg/L BOD and there is a properly sized and functioning screening of solids AND/OR
- b. the treatment system has explicitly been engineered to manage the commingled waste stream and is operated as intended.

Requiring the installation of new subsurface disposal systems to separate the waste streams will be a significant expense for wineries. A winery in Mendocino County that would be considered Tier 3 under the draft Winery Order installed an engineered commingled, pressurized SDS in 2012. The total installation cost approximately \$100,000; \$25,000 for engineering costs and \$75,000 for installation. A commingled system was chosen by the engineer because the sanitary flows from the single toilet at the facility were considered de-minimis. If the winery is forced to separate its commingled system, the installation of a new SDS would likely be greater than \$100,000 because it would have to remove a vineyard to allow for installation. When the system was installed in 2012, an open field was available to install the new SDS. A sample permit for a commingled system is provided in Appendix D to illustrate the specifics of an engineered, permitted system.

Fees

It is difficult to provide comments on a proposed draft Winery Order fee schedule that has not yet been released for public review. However, we offer the following thoughts regarding fees when they are considered by the State Board. Any fees proposed should be in line with the current fees being paid by wineries subject to existing General WDRs, Individual WDRs, Waivers, and County permits. This is particularly important for smaller wineries most impacted by the economic effects of the COVID-19 pandemic. Under previously proposed fee schedules some wineries could have seen fee increases of 600 percent. Wineries currently regulated under Napa County's program could have seen increases of between 1,000 and 4,000 percent under the earlier proposal. The current proposal of 17 PYs seems extremely high. It appears that currently regional boards with existing Winery WDRs manage their programs with the equivalent of approximately one PY each. The proposal seems like an unnecessary and costly increase in staffing. We believe it is important to alert you to our concerns regarding fees so that fees proposed can be more in line with current fees. This is particularly important given the current economic climate facing wineries, which is unlikely to improve in the short-term.

Local Agency Oversight Program

Napa County has been permitting winery waste treatment systems since the 1980s in collaboration with the San Francisco Bay Regional Water Quality Control Board. This program currently permits, inspects, and monitors 187 winery process water systems¹¹. There are an additional 183 wineries in Napa County whose water treatment systems are currently unpermitted by the County and would need to be brought into compliance with the draft Winery Order. We urge the State Board to work closely with Napa County to ensure there is a smooth transition for currently permitted wineries as well as a simplified system for bringing unpermitted wineries into compliance with the draft Winery Order. Further, we recommend careful review and consideration of the comments submitted by Napa County regarding the draft Winery Order.

Sustainability

We appreciate the recognition that winery sustainability certification programs offer value in their standards to prevent environmental degradation. We applaud the draft Winery Order's allowance for wineries participating in sustainability programs that address salt and nitrogen control as a way of meeting the requirements of the regulatory program should be applauded and maintained. This will reduce costs for these wineries by eliminating the need to duplicate efforts.

We request that the Board specify a process and set clear criteria for recognition of all certifications that adequately address salt and nitrogen control. We also urge the State Water Board to set a lower fee level for wineries participating in sustainability certification programs. We appreciate the mention that lower fees are a possibility, but request that it be made certain

¹¹ An additional 29 wineries are permitted by Napa County but capture their process water and haul it off-site for treatment, so they are not subject to the draft Winery Order as proposed.

when the draft Winery Order is adopted. Finally, we urge your consideration of comments submitted by the California Sustainable Winegrowing Alliance.

Monitoring and Reporting Requirements

The draft Winery Order includes numerous monitoring and reporting requirements. Many of these requirements appear unnecessary as they are not matched to identified risks. The monitoring and reporting costs alone are estimated to cost between \$17,000 and \$44,000 annually depending on the size of the winery and the wastewater treatment system used by a winery. Additional information on the monitoring and reporting costs is provided in Appendix A. These annual costs could be reduced considerably by allowing wineries currently proposed for inclusion in Tier 1 and 2 to characterize their source water and effluent in the technical report submitted with the NOI rather than collecting monitoring samples on a regular basis. This sampling could be repeated on a biennial basis, or if winery practices or source water changes.

The draft Winery Order requires extensive monitoring of ponds. The draft Winery Order also requires that new ponds at Tier 1 wineries and existing ponds at all other wineries be lined and that Tier 2, 3, and 4 wineries conduct leak testing every five years. If ponds are required to be lined and leak tests are required, the current monitoring requirements are excessive. The focus should be upon the constituent levels found in process water when it is being land applied, rather than the levels in a lined pond that won't be applied for some time. We recommend a reduction in monitoring frequency to better match the risks posed by the process water.

Further, ponds serve a variety of purposes at winery properties, and often serve multiple purposes. Pond monitoring at ponds that receive de minimis amounts of process water simply adds expense without providing value in achieving the goals of the Winery Order; such monitoring requirements should be eliminated.

In addition to allowing smaller wineries the ability to characterize their process water flows rather than undertake regular monitoring, we mentioned above the need to create a three-step process for requiring Salt and Nitrogen Control Plans. First, wineries that are complying with existing regional water board approved SNMPs (i.e., in accordance with CV-SALTS) would be deemed in compliance with the salt and nitrogen control portion of the draft Winery Order. For wineries that are not operating in an area with regional water board approved SNMPs, if the draft Winery Order currently required them to complete a Salt and Nitrogen Control Plan, they would first be required to meet salt and nitrogen management BPTCs. If after a year of implementing BPTCs, they still have high levels of these constituents in their process water, they would then be required to develop a Salt and Nitrogen Control Plan. For smaller wineries that show high levels of salts or nitrogen in their process water when submitting these figures with the NOI, they would be then be required to implement BPTCs and re-sample after a year.

On top of monitoring and reporting, all wineries are required to submit technical reports on the various segments of their waste treatment systems. These reports are estimated to cost between \$2,000-\$30,000. Tier 3 and 4 wineries have to submit numerous additional technical reports to remain in compliance with the draft Winery Order. Wineries in both tiers have to submit a Spill Prevention and Emergency Response Plan. Wineries subject to groundwater monitoring

requirements are required to submit a Monitoring Well Installation Work Plan, Groundwater Sampling Analysis Plan, and Monitoring Well Installation Report. Tier 4 wineries are also required to submit a Standard Operating Plan Manual. Tier 2-4 wineries with process water ponds are also required to submit a report documenting pond capacity and storm design standards. These reports are costly. The capital reporting costs for groundwater monitoring range from \$12,000-\$25,000 and the well installation will cost between \$50,000- \$120,000 to install the minimum required three groundwater monitoring wells.

These monitoring and reporting requirements should also be considered in the context of current monitoring and reporting requirements for wineries subject to existing regional winery WDRs. Region 1 and Region 3 both have existing WDRs and/or Waivers of Waste Discharge Requirements that have some monitoring and reporting requirements. However, the regional programs have much simpler monitoring programs and could be looked at as guidelines for the development of the monitoring and reporting requirements under the draft Winery Order. The MRPs for these regional programs are provided as Appendix E. Further, the vineyards themselves (i.e., the land application areas) are already covered by existing (or in development) ILRPs. The monitoring and reporting programs associated with ILRPs are extensive and are “an indispensable component of the regulatory program.”¹² The draft Winery Order should utilize monitoring data collected and reported via these programs¹³.

In addition to concerns about the costs to prepare these reports, wineries are also concerned about the requirement to submit all these documents to the regional water boards. We request that all the reports, other than the initial technical report, be kept by wineries subject to the requirement and make the report available if requested by the regional water board. This will ensure that personal business information is not made available publicly. The extensive reports and plans required by the draft Winery Order are unlikely to be utilized by regional water boards, so providing them seems unnecessary. Instead, wineries should certify that the required plans have been completed and are available for review by the regional water board but remain on a winery’s premise.

We appreciate the removal of earlier limits on composting from the draft Winery Order as we did not want to see provisions that could drive wineries away from implementing practices that improve soil health. However, we are concerned that the monitoring requirements for testing winery produced solids prior to land application could act as a disincentive to using those solids as a soil amendment. The state should not be creating disincentives for increasing soil health. The California Healthy Soils Initiative is a collaboration of state agencies and departments aimed at promoting the development of healthy soils on California’s farm and ranch lands. This year the state has invested over \$22 million towards projects to increase soil health. The state has invested an addition \$50.5 million in the effort between 2016 and 2019. The draft Winery Order’s monitoring requirements create obstacles for wineries’ ability to help meet the State’s

¹² SWRCB Order WQ 2018-0002, Waste Discharge Requirements General Order for Growers within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group, p. 66.

¹³ See Monitoring and Reporting Plan (Attachment B) of Order R5-2012-0116-09

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2012-0116-09.pdf

goal of increasing organic matter and carbon sequestration on farmlands and we urge a recognition of this obstacle by promoting on-farm composting of winery organic materials for land application. Specifically, we request that the order clarify that sites that composted wine processing solids be exempt from the solid application monitoring requirements for applications of compost. Further, we recommend an annual characterization of the waste solids rather than the proposed per application sampling.

Flood Protection

The draft Winery Order includes a requirement for Tier 4 wineries to ensure the winery's "conveyance, treatment, storage, reuse, and disposal systems are designed..." to prevent inundation from 100-year flood events. This requirement could create significant, but unknown, costs for wineries in areas that are known inundation zones. Wineries impacted by this requirement should be given the opportunity to work with the regional water board to develop a cost-effective plan to address inundation concerns. Alternatively, any inundation risk could be and should be addressed more appropriately – and more equitably – under the stormwater general permit.

Setbacks

The setback requirements included in the draft Winery Order appear to be based off of sanitary waste setbacks. However, they are more restrictive than setbacks under the California Plumbing Code for septic systems¹⁴. The California Plumbing Code allows disposal fields within five feet of a property line. They are also more restrictive than the setbacks for recycled water regulated under Title 22 of the California Code of Regulations. Section 60310 of Title 22 prohibits the use of irrigation with disinfected tertiary recycled water within 50 feet of a domestic well unless certain conditions are met. This is half the distance being proposed for process water from wineries. The discharges from wineries will not be sanitary waste, instead the discharges would be "greywater," which does not pose the same risks as sanitary waste. The prohibition of discharging within 50 feet of any property line creates significant additional costs and environmental impacts. This setback requirement will mean that wineries that use process water to meet some of the irrigation needs for their grapevines would need to redesign their irrigation systems and use another water source to irrigate their grapevines located within 50-feet of the property line. This again clearly disincentivizes reuse of process water and incentivizes the use of limited fresh water. The new irrigation source for these vines most likely would be provided by groundwater, which will lead to further demands on groundwater.

The proposed setbacks are also more restrictive than setbacks included in existing individual WDRs for wineries adopted by the Central Valley Regional Water Quality Control Board. The setbacks included limit discharges within 50 feet of watercourses. The 50-foot limit was also allowed in the previous administration draft of the Winery Order released in 2019. We recommend maintaining the previous setback limit of 50 feet.

¹⁴ 2019 California Plumbing Code, Table H 101.8, page 428
(<http://epubs.iapmo.org/2019/CPC/index.html#p=473>)

In regard to property line setbacks, the draft Winery Order does not adequately justify the imposition of any setback requirements, and we suggest this be reconsidered and eliminated. Alternatively, the setback requirement should be decreased, rather than increased. The previous administrative draft of the Winery Order allowed for a setback of only 25 feet from the property line for land application areas. It is unclear what led to the increase in setback distances. We urge the setbacks more appropriately match potential risks. With that in mind we recommend that land irrigated with winery process water using drip systems match the 5-foot setback limit included in the California Plumbing Code for disposal fields. For lands irrigated or protected from frost using overhead sprinklers, the last sprinkler head should be placed not less than 25 feet from the property line. For land irrigated using furrow irrigation, the furrow should be not less than 25 feet from the property line.

Discharge Prohibitions

Wineries subject to the draft Winery Order are prohibited from discharging waste “to land not owned, operated, or controlled by the Discharger.” We interpret this prohibition to mean that wineries that have entered into a formal agreement with a landowner allowing them to discharge onto their land would meet the requirement of having “control” of the land for purposes of the draft Winery Order. However, this provision has created confusion for numerous wineries, and we recommend clarifying this point to ensure that wineries are able to continue to enter into agreements with other landowners allowing for discharge onto their properties.

Groundwater Monitoring

The groundwater monitoring requirements included in the draft Winery Order will create significant additional costs for all Tier 4 wineries and Tier 3 wineries that are required to monitor by the regional water board. These blanket monitoring requirements are not based on potential risk posed by wineries. For example, Tier 3 and 4 wineries are required to line their ponds (or demonstrate that a pond is operating with minimal leakage and meets the hydraulic conductivity standard) and test their ponds for leaks at least every five years. If ponds are required to ensure that they are not leaking, what is the risk to groundwater created by a lined, non-leaking pond? Groundwater monitoring in this circumstance would be at significant expense without providing additional relevant information regarding pond performance. We recommend that groundwater monitoring only be required for our proposed Tier 4 and 5 wineries with ponds if requested by the regional water board based on local water quality characteristics, shallow depth to groundwater, and/or pond leakage.

Tier 4 wineries and Tier 3 wineries that are required by the regional board that are land applying process water are required to monitor groundwater. These wineries are also required to regularly monitor constituents posing a risk to groundwater prior to discharging effluent to land application areas. If these wineries have very low levels of constituents of concern, or have low hydraulic loading rates, they wouldn't pose a risk to groundwater quality. These factors should be considered prior to requiring groundwater monitoring and only require groundwater monitoring in situations where hydraulic loading rates are high and levels of constituents of concern are also high enough to pose a risk to groundwater.

We propose the draft Winery Order be amended to allow Tier 4 and 5 (Tiering structure proposed above) wineries that are applying less than 200,000 gallons/acre/year (~7.4 inches) of process water and complying with nutrient ‘agronomic rate’ requirement not be required to monitor groundwater. For Tier 4 and 5 wineries that are applying over 200,000 gallons/acre/year AND more than 30% of the total applied water in the area comes from process water, then the regional board may request groundwater monitoring at Tier 4 and Tier 5 wineries. However, prior to requesting groundwater monitoring review of existing groundwater monitoring data generated from ILRP monitoring efforts should occur.

This also applies to subsurface disposal systems. In situations where the groundwater table is significantly lower than the SDS or the effluent being treated in the SDS has low levels of the constituents of concern, groundwater monitoring shouldn’t be necessary. This is especially true given the requirement to meet hydraulic loading standards required. We urge the draft Winery Order be amended to limit groundwater monitoring to situations where the conditions justify the need. We recommend the following for existing and new SDS:

Tier 4 – Regional Board may request a groundwater evaluation (e.g. hydro punch) if:

- a. Site overlies shallow groundwater, defined as less than 25 ft below ground surface (bgs), AND/OR
 - b. Basin has been determined by the Regional Board as high priority or impacted by a constituent of concern, AND/OR
 - c. Average annual precipitation is less than 20 inches/year (for sites with precipitation greater than 20 inches/year, the rainfall recharge will mix with percolating wastewater and decrease the constituent concentrations reaching groundwater).
- * If groundwater evaluation shows degradation is present, initiate groundwater monitoring.

Tier 5 – Evaluate site groundwater (e.g. hydro punch). * If groundwater evaluation shows degradation is present, initiate groundwater monitoring.

As mentioned in the *Monitoring and Reporting* section above, installing groundwater monitoring wells and completing the associated workplans will cost at a minimum over \$60,000, and likely closer to \$145,000. The annual monitoring costs for groundwater monitoring alone ranges from \$2,400-\$3,900 plus additional reporting requirements. Groundwater monitoring creates a significant financial burden and should not be required without a corresponding direct environmental justification.

Initial Study

The Initial Study for the General Waste Discharge Requirements for Winery Process Water (Initial Study) mentions “typical wineries¹⁵.” There is no definition of a “typical winery,” and in fact there is unlikely to be a “typical winery” at all. There are myriad ways a winery could operate and there are significant regional differences between wineries. It is important to recognize these differences as the draft Winery Order is finalized.

¹⁵ Environmental Checklist, Page 24

The Initial Study includes a statement connecting nitrogen in process water to “residual juice or wine collected during sanitation activities.” However, there is no supporting evidence for this statement. The scientific support for this statement should be included within the document.

There is no mention of the numerous types of ponds that may be present at a winery’s operations. Wineries may have primary and secondary treatment ponds, irrigation ponds, fire suppression ponds, storage ponds, as well as ponds used for frost protection. These ponds may have vastly different percentages of process water and strength of constituents, that originated at the winery, but they are all treated the same. We recommend the Initial Study at least mention their existence, particularly as they provide benefits to agricultural resources, wildlife, and fire control.

Conclusion

Due to the draft Winery Order’s inclusion of many unnecessarily burdensome requirements statewide, in many cases without adequate justification, many in the regulated community will see the draft Winery Order as arbitrary and capricious. We would like to avoid this response and would prefer a Winery Order that has better tailored its requirements, to further the shared goal of protecting California’s water quality while being seen by the winery community as reasonable.

We have included a red-line markup of the draft Winery Order in Appendix F to offer specific changes discussed in this letter. We would like to continue working with you and your staff on revisions to the draft Winery Order to address the concerns that we have raised.

We appreciate your consideration of these comments and are committed to continuing our efforts to recommend workable solutions to create a Winery Order that protects California’s water quality without unnecessarily impacting winery operations, and while minimizing the economic impact to smaller wineries. If you have any questions about the information included in these comments or the attachments, please contact Noelle Cremers with Wine Institute at (ncremers@wineinstitute.org or 916/378-8280).

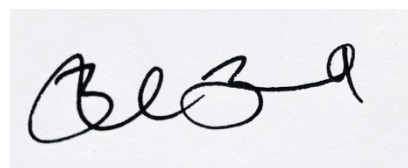
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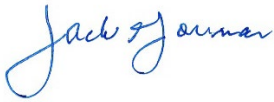
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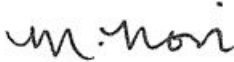
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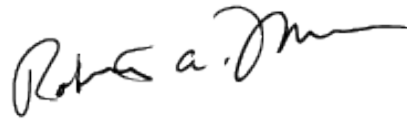
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Family Winemakers of California

Enclosures: Appendix A – Monitoring and Reporting Costs
 Appendix B – Effect of Small Wineries on Water Quality
 Appendix C – BOD Analysis
 Appendix D – Commingled SDS Permit
 Appendix E – Regional Winery Orders
 Appendix F – Red-Line Markup of General Waste Discharge Requirements for
 Winery Process Water