



napa valley vintners





January 5, 2021

Mr. E. Joaquin Esquivel, Chair
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 revised and publicly released on December 2, 2020. We appreciate the changes that were made based on our earlier comments and are providing this letter to outline remaining changes that are necessary to balance the economic impacts of the draft Winery Order with necessary environmental protections.

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 and have been working collaboratively with the State Water Resources Control Board (State Board) to develop a Winery Order that protects water quality while balancing economic impacts. We appreciate the changes that have been made since the July 3, 2020 version was released. For example, significant adjustments were made to the monitoring and reporting requirements to reduce unnecessary costs. However, the Winery Order still includes costly provisions that we believe can be adjusted to reduce costs without harming the necessary environmental protections.

It is important to recognize the economic environment in which wineries are currently operating. The COVID-19 pandemic has shut down winery tasting rooms multiple times since the

pandemic began last winter. Smaller wineries depend on tasting room sales, as direct to consumer sales is their primary sales outlet. This summer wineries in Napa, Sonoma, and Monterey counties were faced with additional losses from catastrophic wildfires. It is estimated that California's wineries, that contribute approximately \$57.6 billion to California's economy, are expected to see losses of \$4.2 billion from the pandemic and an additional \$3.7 billion from this year's fires.

These economic impacts mean wineries are faced with challenging choices tied to the survival of their businesses. Small wineries have been especially hard hit by the pandemic and the need to reimagine their entire business models. The need to focus inwards has prevented them from having the capacity to focus on the development of the Winery Order and determine how the Order's requirements will impact their businesses. Below you will find a list of remaining issues in the current draft Winery Order, exacerbated by these significant economic impacts, that we urge be addressed in the final Winery Order.

Subsurface Disposal Systems

Under the draft Winery Order, wineries in Tiers 2-4 with subsurface disposal systems (SDS) will be subject to effluent limits. The limits appear to be based on the assertion that there is insignificant nitrogen removal in septic/settling tanks. However, the literature documents the removal of nitrogen¹, providing support for additional flexibility for wineries with SDS. The only way for wineries to meet the effluent limits is to install pretreatment systems to treat the winery's process water prior to it being discharged into the SDS. Pretreatment systems with a membrane bioreactor process are necessary to meet the proposed effluent limits. While there is a possibility that other filtration systems may be able to reduce effluent levels to meet the limits, the design and engineering required to meet the effluent limit would likely be equivalent in costs to a pre-designed membrane bioreactor filtration system. Further, wineries generally install SDS because they don't have the necessary space to install treatment ponds. This is important to recognize because, in these cases, there isn't the option of depending on a treatment pond as a solution to reduce BOD levels in winery process water prior to it entering a subsurface system.

According to input we received from Kennedy Jenks Consultants, Inc., the required treatment train prior to discharge to the SDS is complex and costly, due to the nature of discharged winery process wastewater, typically relatively low in flow, high in strength (Biological Oxygen Demand and Total Suspended Solids), and moderate in nitrogen that is predominantly organic in nature. The treatment train complexity is primarily driven by the requirement to meet a low Total Nitrogen (TN) effluent limit of 10 mg/l while simultaneously meeting effluent limits for BOD and TSS. A treatment train required to meet all three proposed effluent limits prior to discharge to the SDS must include the following unit processes:

- Solids removal (typically screening and/or settling);

¹ A number of studies of SDS systems have demonstrated that tanks with baffles and/or use effluent filters on the discharge have significant nitrogen loss from the effluent (Adolfson Associates (1999), Ayres Associates (1993), Converse (1999), **Crites and Tchobanoglous (1998)**, and Oakley, et al. (1998). The amount of N loss from effluent filtration averaged 28% in the studies above, as reported by the Washington State Department of Health: WSDH, 2005. *Nitrogen Reducing Technologies for Onsite Wastewater Treatment Systems*. Nitrogen Reducing Technologies Report to the Puget Sound Action Team. June 2005. See Attachment A for complete citations.

- Biological treatment for removal and reduction of organic material represented by BOD (typically aerobic);
- Biological treatment to transform, remove and reduce TN by nitrification and denitrification processes (aerobic and anoxic); and
- A final solids removal polishing treatment to remove remaining solids that contain residual nitrogen and BOD.

Generally, for small winery process wastewater systems like those discharging to a SDS, it is more cost-effective to select a package treatment system from a qualified treatment technology supplier with specific winery process wastewater experience rather than custom designing the treatment process. This allows the winery wastewater professional to focus on the integration of the package treatment system into the existing site-specific assets and site features, which can often be very challenging due to available space, topography, aesthetics, etc. The types of package treatment systems for which cost ranges were provided included various vendor specific aerobic activated sludge and biological membrane biological reactors (MBR), and aerobic sequencing batch reactors (SBR) designs with and without membrane polishing for solids removal. All systems required effluent polishing solids removal to meet the low TN limit of 10 mg/l. These systems must be designed for peak flow, despite smaller wineries having sporadic flows during most of the year.

Wine Institute received estimates on the cost of installing the necessary pretreatment systems. Based on vendor estimates a Tier 2 winery would expect to pay between \$460,000 and \$975,000 to install pretreatment systems. We estimate that there could be more than 400 wineries in Tier 2 with SDS. Tier 3 wineries would expect to pay between \$724,000 and \$1,534,000 and we estimate there could be more than 85 wineries in this situation. Finally, the installation of a pretreatment system by a Tier 4 winery would be expected to cost between \$1.7 million and \$2.8 million. It is likely that only a small number of Tier 4 wineries have SDS.

The expense of pretreatment systems across the industry is significant. Based on a rudimentary analysis of the possible number of wineries with SDS, compliance with effluent limits will cost California's wineries an average estimate of \$411 million (detailed in Attachment B). This figure only includes estimated costs at wineries in Tier 2-4. However, Tier 1 wineries may be required to install pretreatment systems if they are determined by the regional water board to be in a high-density area. The estimated cost for a Tier 1 winery to install a pretreatment system is between \$230,000 and \$460,000. Tier 1 wineries produce between 800 and 2,300 cases, so if designated as being in a high-density area, these tiny wineries could be required to incur significant costs to comply with the Winery Order.

Instead of imposing effluent limits on Tier 2 and 3 wineries, we propose a delay in the imposition of adjusted effluent limits with additional efforts made to control nitrogen and/or BOD through more cost-effective means. Specifically, the effluent limits would not take effect for the first five years. During that time wineries with SDS would monitor their effluent. If the levels are above 10 mg/L of nitrate as nitrogen, 500 mg/L of BOD, or 330 mg/L of TSS a winery would have to develop control plans outlining how they will reduce the levels in their effluent.

Wineries would have three years to complete and implement a control plan prior to the effluent limits taking effect. We have offered example language in Attachment C.

When considering these changes, it is important to recognize the actual nitrogen loadings on an annual basis from an SDS. The table below shows the nitrogen loadings for the four Tiers for nitrogen concentrations of 10, 33, and 78 mg/L. Tier 1 and 2 loadings, shown in lb/yr are minimal. With a nitrogen concentration of 10mg/L, the maximum nitrogen loading for a Tier 3 winery is 83 lb/yr.

At a nitrogen level of 33 mg/L, a Tier 2 winery would discharge approximately 83 lb/yr of nitrogen, the same amount a Tier 3 winery would discharge with a total nitrogen concentration of 10 mg/L. This minimal nitrogen loading from a Tier 2 winery presents a low risk to groundwater quality and an overly restrictive nitrogen effluent limitation is not necessary.

Tier	Maximum Discharge, gal/yr	lb N/yr @ 10 mg/L	lb N/yr @ 33 mg/L	lb N/yr @ 78 mg/L
Tier 1	30,000	2.5	8.3	19.5
Tier 2	300,000	25	83	195
Tier 3	1,000,000	83	275	651
Tier 4	15,000,000	1,252	4,128	9,758

We also have some specific concerns with the feasibility of some of the monitoring requirements required of wineries with SDS. It will be difficult for wineries to sample prior to discharge due to the automated nature of some SDS. Automated systems can be float or timer operated. Float operated systems discharge treated water from the tank as additional waste is added to the system. Timer operated systems discharge treated waste on a set time schedule. Both systems present challenges for ensuring monitoring occurs prior to every discharge. Additionally, it generally takes 10 business days to receive testing results back from a laboratory. Requiring testing prior to discharge to an SDS will require the installation of much larger tanks to store process water to ensure test results are back prior to discharge.

We request that a regular schedule for testing be set, rather than requiring monitoring prior to every discharge. We would recommend quarterly monitoring for wineries in Tier 2 and monthly monitoring for wineries in Tiers 3 and 4. Tier 2 wineries are unlikely to have discharges every month, which is why quarterly is appropriate. Finally, winery effluent changes throughout the year and there may be limited days where the effluent limit is exceeded, but over the course of the year the annual average will be below the effluent limit. Therefore, to provide operational flexibility and still be protective of groundwater, we request that the limit be based on a rolling average of the three most recent samples.

Groundwater Monitoring

From the beginning of development of the draft Winery Order, Wine Institute has advocated that groundwater monitoring requirements be tied to known groundwater risk factors. Under the draft Winery Order, all wineries in Tier 4 that have process water treatment ponds, land apply winery process water, or have subsurface disposal systems will be required to monitor groundwater except in very limited circumstances. It is important that data from existing regional groundwater monitoring networks be used, and situations that present a risk to groundwater be the trigger for monitoring. The draft Winery Order provides some situations where Tier 4 wineries may not have to monitor groundwater, but those allowances are extremely narrow.

Tier 4 wineries with ponds can avoid groundwater monitoring if they have less than 1 million gallons total in their pond system and the ponds are well managed and operated within the available pond capacities without process water spills. For land application, Tier 4 wineries can skip groundwater monitoring only if there is a greater than 25-foot depth to groundwater, the land application area is located one-half mile or more from a drinking water well, and one-half mile or more from a surface water body. Both situations are rare and unlikely to actually provide the relief intended by these exceptions.

We believe that the technical justification for the groundwater monitoring exemption for Land Application Areas (LAA) is lacking. The eligibility requirement that groundwater beneath the LAA is at least 25 feet below ground surface (bgs) was incorporated in the draft Winery Order without justification. There are many variables that affect whether a LAA system is protective of groundwater or not. The arbitrary groundwater depth of 25 feet bgs does not by itself guarantee that groundwater will not be impacted. In many situations, groundwater will be protected at as little as 10 feet bgs when appropriate Best Management Practices (BMPs) are followed.

The primary methods of groundwater protection beneath an LAA are non-structural BMPs that may include:

- a) Even distribution of process water across the entire acreage of the LAA.
- b) Application of process water at rates below the effluent limits: cycle average BOD loading of less than 100 lb/ac/day, nitrogen loading below agronomic rates, and fixed dissolved solids (FDS) concentration of less than source water FDS plus 320 mg/L.
- c) The Draft MRP includes extensive requirements for observation of the LAA to ensure that effluent limits and other LAA specifications defined in the order are met. These MRP requirements will help to indicate the presence of ponding or locations where process water runoff may be occurring. If the effluent loading limitations and the MRP requirements for LAA management are met, the risk to groundwater beneath the LAA is low.

If the LAA is poorly managed, it will be evident to Water Board staff in the MRP compliance letters submitted by the discharger and, if necessary, groundwater monitoring could be implemented as an enforcement option.

Regarding distance to the nearest drinking water well, the eligibility requirement that the nearest drinking water well be located 0.5 mile or more from the LAA does not consider various

technical factors that would affect whether this well has any connection to the nearby LAA. The draft Winery Order includes LAA setback requirements of 50 feet from water supply wells (Discharge Specification D.1.j.i). Dischargers should be able to evaluate information related to the depth of the drinking water well, the screened interval of the well, and whether it is upgradient or downgradient of the LAA. If the well is upgradient and/or significantly deeper than the shallow groundwater zone potentially affected by the LAA, then the presence of this well should not be a key eligibility factor for groundwater monitoring exemptions.

The eligibility requirement that the LAA is located more than 0.5 miles from a surface water body will immediately exclude a number of wineries. Many wineries are located near surface water bodies to make use of the fertile alluvial sediments deposited by rivers and streams for vineyard planting. The draft Winery Order includes LAA setback requirements of 50 feet from nearby surface waters or surface water drainages (Discharge Specification D.1.j.ii). This setback requirement will help ensure process water discharged to a LAA will not impact nearby surface water bodies. Structural site controls such as berms or ditches around LAAs and tailwater collection and return to prevent offsite discharges of process water (as described in Finding 36) are specified in the draft Winery Order and are key structural BMPs that make direct discharge to a nearby surface water body unlikely. The 0.5 mile from surface water eligibility requirement should be removed as it does not take into account the structural measures for process water containment specified in the draft Winery Order to allow LAA setbacks of 50 feet.

We believe there are more situations in which groundwater monitoring exemptions should be allowed. For example, a winery that treats its process water to a level close to the proposed effluent limits for SDS and land applies that process water within 0.4 miles from a drinking water well would be required to install groundwater monitoring wells despite a very low risk of groundwater degradation. Additionally, what happens if a winery is able to meet the distance thresholds to avoid the need for groundwater monitoring but sometime in the future a neighbor installs a well within 0.5 miles of the land application area? Another winery may have oversize ponds that allow it to store most of its process water. However, every five years, because of increased precipitation, the winery may land apply about 100,000 gallons of process water over a large area. They would also be required to install a groundwater monitoring network and monitor the groundwater quarterly even though the winery may only land apply in 2 of the 20 quarters that require groundwater monitoring.

First, we recommend a focus on expanding regional groundwater monitoring networks. This will allow wineries to jointly invest in collecting regional monitoring well data that will improve the general understanding of regional groundwater quality. This helps spread the cost of groundwater monitoring more efficiently and provides meaningful data throughout a region. Both Region 3 and Region 5 have adopted regional groundwater monitoring programs as part of their Irrigated Lands Regulatory Programs (R3-2017-0002 and R5-2012-0116-09). We believe a similar concept should be incorporated into the Winery Order to limit the need for groundwater monitoring by individual wineries. This will reduce costs for wineries as well as expanding the network of data available to understand the current groundwater quality in more areas of the state.

While time is short to fully develop a regional groundwater monitoring program, we believe the State Water Board could follow the example of the regional salt and nutrient management plans and allow wineries to participate in existing regional groundwater monitoring programs (i.e., groundwater monitoring as part of an irrigated lands regulatory program). For areas without existing regional groundwater monitoring programs, dischargers could develop a regional groundwater monitoring plan and participate in regional groundwater monitoring to meet the groundwater monitoring requirements of the Winery Order.

Secondly, nitrogen in winery process water is primarily organic nitrogen, which requires specific factors to be present for it to convert to nitrate and travel to groundwater. This conversion is accomplished by microbial processes. The microbial population requires nitrogen to continue to thrive and break down organic nitrogen and convert ammonia-N to nitrate-N. The microbial populations that die off are incorporated into the soil as humus and are replaced by new colonies. Given that the conversion of total N to nitrate-N requires two microbial processes to convert organic nitrogen to ammonia-N and convert ammonia-N to nitrate-N, the nitrogen needs of the microbial population prevent all total N from being converted to nitrate-N. This limitation should be recognized by providing additional flexibility for groundwater monitoring and a regional groundwater monitoring system would be able to identify if high levels of conversion from organic nitrogen to nitrate-N were occurring.

It is also important to recognize the existing groundwater monitoring data available in regions with high winery presence doesn't show high levels of nitrate contaminated groundwater. For example, according to the State Water Board's Groundwater Information System both the Alexander and Napa Valleys have low levels of nitrates in existing wells. This points to the likelihood that wineries are generally not a significant source of nitrate contamination, or we would expect to see higher levels of nitrates in wells around areas that have a high number of wineries that have been in business for decades.

Third, the eligibility requirement that a pond system must have a total volume of less than 1 million gallons (MG) likely excludes Tier 4 wineries that have a process water effluent of greater than 4 million gallon per year (MGY). Wineries with greater than 4 MGY of process water effluent are likely to have treatment ponds with total volumes greater than 1 MG. It is proposed that the eligibility requirement be changed to a total volume of 2 MG, which would likely exclude wineries with less than 5 MGY of process water effluent. Under the current draft Winery Order, we estimate that about 118 wineries would be subject to groundwater monitoring requirements. If the total pond volume was increased to 2 MG, approximately 80 wineries may be eligible for an exemption if they have well managed ponds. This would save an estimated \$11 million across Tier 4 wineries for monitoring well installation and up to \$832,000 in ongoing annual costs.

The eligibility requirement that the ponds meet all other requirements of the General Order implies that the ponds must be lined as specified in the Order. Lining of a pond limits the hydraulic conductivity to less than 1.0×10^{-6} cm/s. Because this minimal amount of seepage presents a very low risk to underlying groundwater quality, groundwater monitoring should not be required.

In conclusion we recommend the joint collection of regional groundwater monitoring data from existing wells instead of requiring individual groundwater monitoring of LAAs, with regional water

board authority to require groundwater monitoring if semi-annual and annual reports by Tier 4 wineries show non-compliance with existing limits. Additionally, we recommend increasing the allowance for wineries to avoid the need to install groundwater monitoring of their ponds if the total volume of their process water pond system is under 2 MG. These wineries would still need to document that their ponds are well managed and operate within the available pond capacities without spills. Finally, the process by which a winery requests an extension for compliance with groundwater monitoring requirements and establishing operational data for a compliance record would benefit from added clarity. We have provided possible clarifying language in Attachment C.

Tier Structure

We appreciate the changes made to the proposed tier structure for smaller wineries. This change will help numerous small wineries who have been most severely impacted by the pandemic. The change recognizes the limited potential impact these wineries present to water quality and regulates them accordingly. However, we remain concerned with the size range included in Tier 4. The draft Winery Order's proposed Tier 4 includes wineries producing between 1,000,000 and 15,000,000 gallons of process water annually. There is significant difference in economics for wineries at the top and bottom ends of the proposed tier. Using an estimated 5.5 gallons of process water produced per gallon of wine, wineries at the bottom end of Tier 4 would be expected to produce around 76,000 cases of wine annually. Those at the top end would be expected to produce approximately 1.1 million cases. The revenue differences between wineries at the bottom and top end of the tier is significant. This disparity means wineries at the bottom end of the tier have much lower revenues with which to invest in upgrades required by the Winery Order.

Wine Institute is requesting that the top tier be split to ensure that the costs of upgrades and fees be appropriate to all wineries included in each tier. We recommend that Tier 4 be adjusted to include wineries ranging from 3 million to 15 million gallons of process water annually. Wineries producing between 1 million and 3 million gallons of process water should be shifted into Tier 3. In addition to recognizing the compliance costs included in Tier 4, this shift will also ensure that when fees are set those at the bottom end of the tier aren't unfairly charged. We estimate significant cost savings to California's wine industry by making this shift. Based on one-time costs expected to be incurred by wineries in Tier 4, we expect that restructuring the tiers would save an estimate \$12.5 million in one-time costs alone. There would be additional monitoring and reporting cost savings as well as expected unknown savings in annual fees.

We estimate the following number of wineries by tier under the State Water Board's proposed tier structure:

Tier	Gallons	Average Cases	Number of Wineries
Exempt	>10,000	800	556
Tier 1	10,000-30,000	800-2,300	447
Tier 2	30,000-300,000	2,300-23,000	757
Tier 3	300,001-1,000,000	23,000-78,000	158
Tier 4	1,000,001-15,000,000	78,000-1,157,000	118
Total			2036

We estimate the following number of wineries by tier under the structure that we propose:

Tier	Gallons	Average Cases	Number of Wineries
Exempt	>10,000	800	556
Tier 1	10,000-30,000	800-2,300	447
Tier 2	30,000-300,000	2,300-23,000	757
Tier 3	300,001-3,000,000	23,000-231,000	218
Tier 4	3,000,001-15,000,000	231,000-1,157,000	58
Total			2036

We understand that staff has estimated a higher number of wineries will be subject to the Winery Order than is included here. We cannot promise that the data upon which we relied to generate these figures is 100 percent correct as it is based off industry generated estimates of the number of cases produced by wineries. Those figures can change based on economic situations and could be especially impacted by production reductions due to smoke exposed grapes. However, we believe that the most significant reason our figures differ from those figures developed by staff is due to staff's reliance on peak design flow as the basis of the estimate. Peak design flow represents the highest one day flow a winery's treatment system can manage. It is a theoretical figure, and the winery may not ever produce this volume of process water. If the facility did produce the peak design flow, it would occur for only a few days during harvest. Multiplying the peak design flow by 365 will significantly overestimate the process water produced by a winery. For example, in our review of one winery's average daily flow included in its individual WDR, we found this methodology would lead to staff estimating an annual process water production of six times the amount of process water that the winery is likely to actually produce. This would lead to a much higher estimate of wineries in Tier 4 than exist.

We appreciate the Water Board's allowance for wineries to permit their facilities based on actual process water discharged, rather than the maximum design flow for which the winery was designed. This allows wineries that may have been designed to operate at a higher level but are not actually operating at full capacity to obtain a permit based on their actual operations. However, some clarification is necessary in the Winery Order's language to ensure that this point is clear. It is also necessary to clarify how a winery will determine its process water flow if

it doesn't have five years of historical flow data as required in the technical report (Winery Order Appendix C).

We appreciate the adjustment of requirements for Tier 1 wineries to better match the low risk to water quality these wineries present. We recognize the ability of regional boards to require Tier 1 facilities to register as Tier 2 facilities if they are in high density areas. However, facilities directed to register at a higher tier should be eligible to request a hearing with the State Water Board or regional water board if they feel the facts do not justify the need to register in a higher tier.

Ponds

Wine Institute has expressed concern regarding requirements in earlier drafts about pond lining requirements for ponds that contain small amounts of process water that are used for other purposes. These ponds may be used for irrigation, fire control, frost protection, or aesthetic purposes and do not present the same level of risk to groundwater as primary treatment ponds. The cost of lining these ponds could be significant and the potential groundwater protection is not matched by the costs of lining. Additionally, the reuse of a winery's process water serves as a practice of water conservation and requiring pond lining would disincentive its use.

It is estimated that the cost of lining existing ponds at Tier 3 and 4 wineries ranges from \$351,000 to \$1,104,000. The specific cost estimates are provided in Attachment D. These costs are estimated based off average sizes for process water treatment ponds. However irrigation ponds can be larger than treatment ponds meaning lining costs for large irrigation ponds could be even higher.

A solution to address this concern is to focus the Winery Order on process water *treatment* ponds. This ensures that the necessary protections are made for ponds used to treat process water produced by a winery, without creating disincentives for the reuse of water that can provide benefits by mixing it with fresh irrigation water.

Tier 1 wineries are required to provide details of pond capacity, liner status, and liner characteristics in the NOI submitted to the regional board. This could be costly for Tier 1 wineries and we request that the State Water Board or regional boards provide a template to provide guidance to Tier 1 wineries submitting their NOIs.

The Winery Order requires wineries in Tiers 3 and 4 to conduct a performance test on their ponds every five years. However, there is no definition of a performance test included in the Winery Order and without a definition it is difficult to ascertain exactly what standards are necessary to meet the performance test requirements. We request that the State Water Board, either better define a performance test within the Winery Order or create a fact sheet once the Winery Order is adopted providing further explanation of what actions would be considered a performance test and in compliance with the Winery Order.

Coordination Between ILRP and Winery Order

Wineries using process water to irrigate commercial crops are subject to irrigated lands regulatory programs (ILRP) in some regions of the state. The East San Joaquin Order is precedential and all future ILRP in the state will have to follow its nitrogen management requirements. Wineries with vineyards subject to ILRP with nitrogen management requirements should be able to utilize their ILRP management and reporting requirements to meet the requirements of the Winery Order. This will prevent unnecessary duplication of monitoring and reporting efforts as well as potentially conflicting reporting if the requirements are different.

Agronomic Rate Requirements

The Winery Order requires wineries land applying process water to meet agronomic rates for nitrogen applications. There are wineries that use their process water to irrigate ornamental vegetation and small demonstration gardens as a means both of beneficially using their process water and of water conservation. However, there are challenges around determining agronomic rates for process water applied to vegetation that is not a commercial crop because these vegetation types are unlikely to have readily available nitrogen uptake values. We urge a simplified process for determining the “agronomic” rate for ornamental landscaping and other non-commercial crops.

We appreciate the allowance to use either published values to determine crop uptake levels or crop tissue sampling, as crop tissue sampling can be expensive and published values should meet the needs of the Winery Order. Clarifications are necessary in the Winery Order, as there are some sections that make it clear that published values are acceptable and other areas where it seems that crop tissue samples are required.

Commingled Systems

Wine Institute is concerned that the draft Winery Order will require wineries to upgrade commingled domestic systems by separating the treatment of domestic and winery process water to obtain coverage under the Winery Order. 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. Wine Institute continues to urge allowance of existing commingled systems that are properly engineered, in good functioning condition, and are locally permitted to be covered under the Winery Order. This will save significant expense for wineries that would otherwise be required to upgrade their systems that are in perfectly functional condition or obtain an individual permit from their regional water board.

Monitoring Requirements

We appreciate the changes made to the monitoring and reporting program (MRP) requirements of the Winery Order. It is clear that our concerns presented in our August 5, 2020 comments were taken seriously. A few remaining areas within the required MRP could be adjusted to

eliminate the unnecessary monitoring of specific constituents because the same information can be gathered by collecting similar data. For example, wineries required to monitor groundwater need to collect both FDS and TDS samples however, TDS is sufficient because there are minimal volatile solids in groundwater. Eliminating the requirement to test FDS doesn't change the information provided by the monitoring but does reduce testing costs.

Another example is the requirement to capture total Kjeldahl nitrogen, Ammonia as nitrogen, and Nitrate as nitrogen monthly. We believe that because total nitrogen is being measured monthly, that the monitoring of other forms of nitrogen could be reduced to quarterly monitoring without a winery losing an understanding of their nitrogen levels.

We also request elimination of the requirement to include characterization of moisture from process solids. Many wineries may not have the expertise to properly collect this information and the information is of limited value to the protection of water quality or management of winery wastewater systems even if collected correctly.

In addition, we have some specific concerns about the feasibility of some of the monitoring required of wineries with SDS. The requirement to collect effluent samples after treatment and before discharge will likely be difficult for existing systems with underground tanks due to the lack of an access sample point within the system. We request some flexibility for specific testing location for systems with limited monitoring access points.

We have included specific recommended changes in Attachment C.

BOD Limits

We appreciate the elimination of the instantaneous BOD limit from the Winery Order. The previous instantaneous limit was not technically justified and would have created hardships for wineries to meet. We are seeking some additional clarifications on the determination of average BOD sample rates when the three most recent samples contain both crush and non-crush process water. We request that in those situations, the most recent sample taken be used to determine the average BOD loading rates.

Estimated Costs

We appreciate the effort that staff undertook to generate cost estimates for wineries subject to the Winery Order. However, we would like to expand upon the estimates provided to add clarity to the total costs expected under the Winery Order. According to our estimates (detailed in Attachment E), we found some of the cost estimates to be low.

Summary of Estimated Monitoring and Reporting Costs							
	Tier 2		Tier 3		Tier 4		
	Pond/LAA	SDS	Pond/LAAs	SDS	Pond/LAAs	SDS	
Approximate Annual Monitoring and Reporting Costs	\$ 6,800	\$ 7,100	\$ 10,700	\$ 11,200	\$ 21,700	\$ 23,500	
SWRCB's Range (Finding 95):	\$1,500-\$5,000		\$3,000-\$10,000		\$25,000-\$45,000		
One-Time NOI & Technical Report Costs:	\$ 10,000		\$ 15,000		\$ 25,000		
One-Time Purchase of pH/EC Meter & DO Meter:	\$ 1,400		\$ 1,400		\$ 1,400		
Composite Sampler (Tier 4 only):					\$ 2,500		
Total One-Time Costs:	\$ 11,400		\$ 16,400		\$ 28,900		

The costs above do not include the additional cost of time for winery employees to complete the necessary tasks required under the Winery Order. These costs could be significant depending on whether a winery would need to hire outside consultants to comply with the Winery Order due to the limited capacity of existing employees at 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 environmental compliance departments. In addition to the laboratory costs outlined in the table above, there will be labor costs incurred by wineries to gather the necessary samples and complete the required observations. The Winery Order included estimates of labor costs ranging from \$4,000 for a Tier 1 winery to \$42,500 for a Tier 4 winery.

The laboratory and labor costs are ongoing costs to comply with the Winery Order (detailed in Attachment E). In addition to these costs, the Winery Order also includes requirements that will create significant one-time costs for wineries needing to comply with pond lining requirements or SDS effluent limits proposed in the Winery Order. Pond lining costs range from \$157,000 for a Tier 2 winery to line a new pond and \$1,393,000 for a Tier 4 winery to line a new pond.

As discussed previously, the cost of installing pretreatment systems to meet the proposed effluent limits included in the Winery Order are significant. A Tier 2 winery would expect to pay between \$460,000 and \$975,000 for a pre-treatment system and a Tier 4 winery would expect to pay as much as \$2.8 million.

Wineries in Tier 4 will be required to install a groundwater well monitoring network under the draft Winery Order. The installation of three groundwater monitoring wells and associated reports is estimated to cost between \$62,000 and \$145,000 for each winery (detailed in Attachment F). Wineries with ponds and LAA separate by significant distances will be required to install even more. The minimum cost for groundwater monitoring for Tier 4 wineries is expected to cost between \$7 million and \$17 million.

Process Water Application Near Forecasted Precipitation

The revised Winery Order includes a requirement that “process water and process solids shall not be applied to the LAA when rainfall is expected within 24 hours.” This is not well defined, as a 10 percent chance of a 0.1-inch of rain is very different from a 75 percent chance of 2-inches of rain.

Instead, we propose replacing with the following language to clarify the situation when land application is prohibited:

- a. Process water and process solids shall not be applied to the LAA when the ground is saturated. Evidence of saturated soils includes ponding or standing water and stormwater runoff in the Land Application Area.

This language is derived from language recently adopted by regional water boards in several individual winery WDRs (detailed in Attachment G).

FDS Limits

The Winery Order released December 2, 2020 was amended to prohibit wineries from exceeding the FDS threshold. This change creates challenges for wineries that may exceed the threshold. Additionally, the Winery Order appears to provide guidance to wineries that may exceed the threshold by requiring the submission of a Salt Control Plan or participating in an approved sustainability program. Instead, we request that the language return to the earlier version, which requires wineries to submit Salt Control Plans if they exceed the FDS threshold.

Nitrogen Control Plan

The Winery Order includes notice that regional boards may direct wineries in Tiers 3 and 4 to submit Nitrogen Control Plans based on site specific risk factors. This requirement is included in a section of the Winery Order that speaks almost exclusively to requirements that are limited to Tier 4 wineries. We recommend moving this requirement to a location where it will be more obvious of its applicability to Tier 3 wineries.

Sustainability Programs

We appreciate the recognition of California wineries' investment in developing meaningful sustainability programs by allowing some simplification and fee reduction for wineries certified under approved sustainability programs. In 2003 Wine Institute and the California Association of Winegrape Growers partnered to create the California Sustainable Winegrowing Alliance, which is a non-profit organization responsible for administering one of several winery sustainability certification programs with relevant requirements. In 2020, CSWA certified 171 wineries under its program. This figure accounts for 80 percent of the wine produced in California. Certification systems cannot take the place of regulatory agencies and it is important that the role of the certifiers remain as certifying that wineries are meeting the requirements of a specific certification program, not that they are certifying compliance with the entire Winery Order. The Winery Order should be clarified to limit confusion between the responsibilities of regulatory agencies, wineries, and sustainability certification programs. Additionally, it would be helpful for the Winery Order to include specific criteria that certification programs would need to meet, as well as the process to follow, in order to be accepted by the State Water Board or regional water board. This would enable programs to demonstrate how they meet that criteria, or to potentially develop new ways to address the criteria in the future.

Fees

In August 2020, the SWRCB proposed a need for 17 Personnel Years (PY) to meet the needs of managing the Winery Order at a cost of \$3.4 million. These costs seem excessive and Wine Institute is urging the State Water Board to carefully tailor costs to the actual needs to ensure environmental protection. We are also concerned that if proposed fees are based on the current tier structure there will be significant disparities due to the vast size differences between wineries at the top and bottom ends of some of the tiers. We urge the State Water Board to work to develop a fee schedule that accurately captures the risks presented by wineries subject to the Winery Order and is appropriate to the economics of the wineries.

Conclusion

There has been limited time available to review the changes included in the December 2, 2020 version of the Winery Order. As mentioned previously, it is estimated that California's wineries are expected to see losses of \$3.7 billion from this year's fires and an additional \$4.2 billion in losses from the pandemic. While we appreciate that changes were made, the Winery Order continues to include burdensome requirements. We urge you to make further adjustments to eliminate unnecessary economic burdens unmatched with environmental risks and to ensure that the proposed actions are tailored to actual environmental risks and are economically achievable.

We estimate that, at minimum, the one-time costs that will be incurred by wineries subject to the Winery Order will be over \$778 million². The amendments that we are proposing would save an estimated \$581 million, bringing down the total estimated costs to \$196 million. Given the current economic situation facing wineries, we strongly urge your favorable consideration of our proposed amendments to reduce the costs of implementing the Winery Order while still protecting California's water quality. We have included a red-line markup of the draft Winery Order in Attachment C to offer specific changes discussed in this letter.

We appreciate your consideration of these comments to create a Winery Order that protects California's water quality without unnecessarily impacting winery operations, and while minimizing the economic impact to California's 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.

Sincerely,



Noelle G. Cremers

Director, Environmental & Regulatory Affairs, Wine Institute

² This figure is based on the following assumptions: 50 percent of Tier 4 wineries will have to line one pond, 75 percent of Tier 3 wineries with ponds will have to line one pond, 95 percent of Tier 2 wineries with ponds will have to line one pond, 90 percent of Tier 4 wineries will install 3 groundwater monitoring wells, 57 percent of Tier 2-3 wineries have SDS (and no ponds), 25 percent of Tier 3 wineries with SDS have commingled systems that will require separation, and 50 percent of Tier 2 wineries with SDS have commingled systems that will require separation.

Mr. E. Joaquin Esquivel

January 5, 2021

Page 17



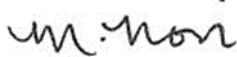
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Executive Director
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Danny Merkley
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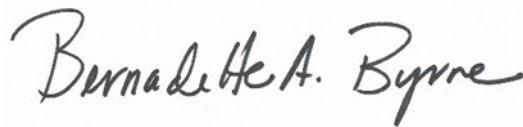
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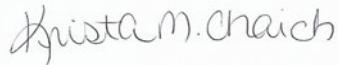
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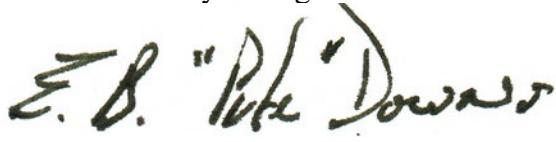
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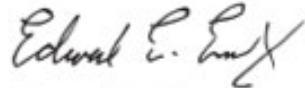
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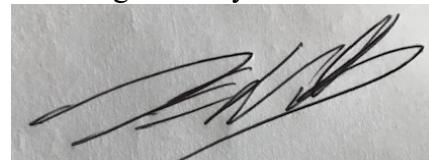
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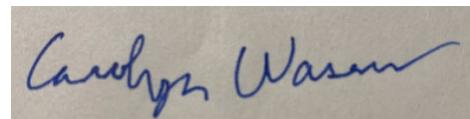
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Attachments:

Attachment A – SDS Nitrogen Loss Citations

Attachment B – SDS Pretreatment System Costs

Attachment C – Draft Winery Order Markup

Attachment D – Pond Lining Cost Estimates

Attachment E – Winery MRP Costs and Staff Cost Estimate Revisions

Attachment F – Groundwater Monitoring Well Installation Cost Estimates

Attachment G – PW Application During Rain Events