

General Waste Discharge Requirements for Winery Process Water Example Requirement Matrices



State Water Resources Control Board

Terminology

≤ – Less than or equal to

< – Less than

BOD – Biochemical oxygen demand

BPTC – Best Practical Treatment or Controls

CEQA – California Environmental Quality Act

cm/s – Centimeters per second

CV-SALTS – Central Valley Salinity Alternatives for Long-Term Sustainability

Discharger – Owner or Operator of the facility producing wine, grape juice, or operating similar activities that generate waste and discharge to land

DO – Dissolved oxygen

EC – Electrical conductivity

FDS – Fixed dissolved solids

FEMA – Federal Emergency Management Agency

gal/sqft/d – Gallon per square foot of discharge trench per day

GAMA – Groundwater Ambient Monitoring and Assessment Program

GPY – Gallons of process water a year

GWM – Groundwater monitoring

LAA – Land application area

lb/ac/d – Pounds per acre per day

MG – Million gallons

mg/L – Milligram per liter

MRP – Monitoring and Reporting Program

NH₃-N – Ammonia-Nitrogen

NO₂-N – Nitrite-Nitrogen

NO₃-N – Nitrate-Nitrogen

NOA – Notice of Applicability

NOI – Notice of Intent

State Water Resources Control Board

NOT – Notice of Termination

Order – General Waste Discharge Requirements for Winery Process Water (also referred to as General Winery Order)

Reg Bd – Regional Board

ROWD – Report of Waste Discharge

SDS – Subsurface disposal system

SNMP – Salt and Nutrient Management Plan

State Bd – State Water Resources Control Board

TDS – Total dissolved solids

TKN – Total Kjeldahl Nitrogen

Total N – Total Nitrogen

TSS – Total suspended solids

WDR – Waste Discharge Requirement

Wineries – For the purposes of this Order, a facility producing wine, grape juice, or operating similar activities that generate waste and discharge to land

State Water Resources Control Board

General Winery Order Requirements Matrix - Exempt Category

No.	Condition	Exempt Category
A) TIERS AND ENROLLMENT		
1	Tier structure	<10,000 gal/yr <ul style="list-style-type: none"> - Tier determined by annual facility process water design or permitted flow by the Reg Bd. - Facility discharge flow limit set equal to or less than the permitted annual design flow stated in Notice of Applicability (NOA). [The permitted flow shall not exceed the design flow.] <u>Notes</u> <ul style="list-style-type: none"> - Exempt facilities: Reg Bd can direct facility to enroll as Tier 1 if facility determined to violate Order prohibitions or conditions, pose a threat to water quality, high density of wineries located in an area. - Tier 1: Reg Bd can direct facility to enroll as Tier 2 if there is a high density of wineries, facility is determined to violate Order prohibitions or conditions, or facility is determined to pose a threat to water quality. - Facilities with less than 5 years of historical annual winery effluent data can provide an accurate alternative calculation and - description in the NOI Technical Report for Reg Bd review.
2	Enrollment	No enrollment unless directed by Reg Bd to enroll as Tier 1.
3	Application for coverage	NA
4	Termination of coverage	NA
5	Fees	NA
6	California Environmental Quality Act (CEQA)	NA
B) PROCESS WATER PONDS		
7	Pond capacity	NA
8	Pond hydraulic conductivity	NA
9	Pond siting	NA
10	Pond operations	NA
11	Pond performance	NA
C) LAND APPLICATION AREA (LAA) - Applies to irrigation of crops or planted landscaping using winery process water		
12	Loading rate limits	NA
13	Land application area	NA

State Water Resources Control Board

D) SUBSURFACE DISPOSAL SYSTEM (SDS)	
14 SDS discharge flow limit	NA
15 SDS effluent limits	NA
16 SDS treatment and disposal	NA
17 SDS siting	NA
18 SDS operations	NA
E) SALT CONTROL	
19 FDS threshold	NA
20 Salt control best practicable treatment or controls (BPTCs)	NA
F) OTHER REGULATORY CONSIDERATIONS	
21 Sustainability programs	NA
22 Salt and nutrient management plans (SNMPs)	NA
23 Local Agency Oversight Programs	NA
24 Basin Plans	NA
25 Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)	NA
G) OTHER WINERY ACTIVITIES	
26 Process solids	NA
27 Stormwater	NA
28 Domestic wastewater	NA
29 Wastewater not covered by Order	NA
H) TECHNICAL PROVISIONS	
30 Sampling upgrades	NA
31 Salt control BPTCs	NA
32 Spill prevention and emergency response plan	NA
33 SDS discharge rate	NA

State Water Resources Control Board

34 Commingled wastewater systems	NA
35 Salt Control Plan	NA
36 Nitrogen Control Plan	NA
37 Groundwater monitoring	NA
38 Groundwater monitoring well installation	NA
I) MONITORING AND REPORTING	
39 Monitoring reports	NA
40 Source and supplemental waters	NA
41 Winery effluent	NA
42 Process Water Ponds	NA
43 Land application -- Effluent to land	NA
44 Land application area	NA
45 Subsurface disposal system -- Settling tank	NA
46 Subsurface disposal system -- Effluent to disposal area	NA
47 Subsurface disposal area	NA
48 Solids	NA
49 Groundwater	NA

State Water Resources Control Board

General Winery Order Requirements Matrix - Tier 1

No.	Condition	Tier 1
A) TIERS AND ENROLLMENT		
1 Tier structure		<p>10,000 - 30,000 gal/yr</p> <ul style="list-style-type: none"> - Tier determined by annual facility process water design or permitted flow by the Reg Bd. - Facility discharge flow limit set equal to or less than the permitted annual design flow stated in Notice of Applicability (NOA). [The permitted flow shall not exceed the design flow.] <p><u>Notes</u></p> <ul style="list-style-type: none"> - Exempt facilities: Reg Bd can direct facility to enroll as Tier 1 if facility determined to violate Order prohibitions or conditions, pose a threat to water quality, high density of wineries located in an area. - Tier 1: Reg Bd can direct facility to enroll as Tier 2 if there is a high density of wineries, facility is determined to violate Order prohibitions or conditions, or facility is determined to pose a threat to water quality. - Facilities with less than 5 years of historical annual winery effluent data can provide an accurate alternative calculation and description in the NOI Technical Report for Reg Bd review.
2 Enrollment		<p><u>Existing facilities</u></p> <ul style="list-style-type: none"> - If unpermitted, enroll within 3 years of Order adoption or as notified by Reg Bd. - If permitted, enroll when existing permit expires or comes up for renewal, or as notified by Reg Bd. <p><u>New or expanding facilities</u></p> <ul style="list-style-type: none"> - Enroll 180 days before start of operations. <p><u>Note</u></p> <ul style="list-style-type: none"> - Reg Bd may issue individual WDRs in lieu of requiring Order coverage if an individual WDR is more protective of water quality.

State Water Resources Control Board

<p>3 Application for coverage</p>	<ul style="list-style-type: none"> - Submit Notice of Intent (NOI) (Attachment B), technical report (Attachment C), and filing fee. NOI and technical report together make up the report of waste discharge (ROWD). If applicable, include a proposed compliance schedule in the technical report. - Reg Bd to issue a site-specific NOA that includes a site-specific monitoring and reporting program (MRP) and approved compliance schedule. <p><u>Notes</u></p> <ul style="list-style-type: none"> - Tier 1: Submit abbreviated technical report (only Sections 7, 8, and 9). Tier 1 to be issued an abbreviated MRP (monitor discharge flow and days of operation). - New or expanding facilities: Expected to comply with Order at onset of operations.
<p>4 Termination of coverage</p>	<ul style="list-style-type: none"> - Submit Notice of Termination (NOT) (Attachment D) at least 120 days before stopping discharge activities. - Discharger is responsible for fees and Order requirements until NOT is approved by Reg Bd.
<p>5 Fees</p>	<p><u>Filing fee</u></p> <ul style="list-style-type: none"> - Application filing fee serves as first annual fee. <p><u>Annual fee</u></p> <ul style="list-style-type: none"> - Per the fee schedule that is adopted by the State Bd. - Reduced fees may be available if enrolled in a sustainability program and/or Local Agency Oversight Program.
<p>6 California Environmental Quality Act (CEQA)</p>	<p><u>All facilities</u></p> <ul style="list-style-type: none"> - Prepared mitigated negative declaration to cover existing, new, and expanding facilities. - Facilities must comply with mitigation measures for tribal cultural resources (Attachment F). <p><u>New or expanding facilities</u></p> <ul style="list-style-type: none"> - New or expanding facilities are subject to further CEQA evaluation on a site-specific basis by a Local Agency or Reg Bd.
<p>B) PROCESS WATER PONDS</p>	
<p>7 Pond capacity</p>	<p><u>Existing ponds</u></p> <ul style="list-style-type: none"> - May continue operating pond at present size if all other Order requirements met. - Document pond characteristics in NOI and/or technical report. - Reg Bd may require pond to comply with pond size design standard within 3 years if existing pond has had, or has potential for, frequent or significant spills. <p><u>New or expanding ponds</u></p> <ul style="list-style-type: none"> - May construct ponds smaller than pond size design standard if all other Order requirements met. - Submit pond details to Reg Bd 120 days before start pond construction. - Reg Bd may require pond to comply with the pond size design standard within 3 years if pond has had, or has potential for, frequent or significant spills.

State Water Resources Control Board

8 Pond hydraulic conductivity	<p><u>Existing ponds</u></p> <ul style="list-style-type: none"> - May continue operating pond at present lined or unlined state if all other Order requirements met. - Document pond characteristics in NOI and/or technical report. - Reg Bd may require pond comply with pond liner requirements within 5 years if existing pond has caused, or has potential to cause, groundwater pollution. <p><u>New or expanding ponds</u></p> <ul style="list-style-type: none"> - May construct an unlined pond if all other Order requirements met. - Submit pond details to Reg Bd 120 days before start pond construction. - Reg Bd may require pond to comply with pond liner requirements within 5 years if pond has caused, or has potential to cause, groundwater pollution.
9 Pond siting	NA
10 Pond operations	- Managed, operated, and maintained to protect containment integrity, prevent overtopping or structural failure, and prevent damage from burrowing animals. Repair damage as soon as possible.
11 Pond performance	NA
C) LAND APPLICATION AREA (LAA) - Applies to irrigation of crops or planted landscaping using winery process water	
12 Loading rate limits	NA
13 Land application area operations	<ul style="list-style-type: none"> - Irrigate with distribution uniformity; minimize ponding and allow sufficient dry time. - Confine irrigation water to land application area; no offsite runoff; no discharge to surface water or stormwater drainage system. No process water or process solids application within 24 hours of precipitation greater than 50-percent probability, during precipitation, when ground is saturated. - Apply process solids uniformly; minimize nuisance conditions.
D) SUBSURFACE DISPOSAL SYSTEM (SDS)	
14 SDS discharge flow limit	NA
15 SDS effluent limits	NA

State Water Resources Control Board

<p>16 SDS treatment and disposal area (see also matrix section 28 'Domestic wastewater' and 34 'Commingled wastewater systems')</p>	<p>Treated wastewater from separate process water and domestic wastewater systems may be directed to same subsurface disposal area if approved by Reg Bd. Schedule not to exceed 3 years from NOA issuance.</p> <ul style="list-style-type: none"> a) Process water treated separately from domestic wastewater; no commingling of untreated waste. b) Process water treatment/system and subsurface disposal area complies with all Order requirements. c) Domestic wastewater system regulated under separate permit through Reg Bd or Local Agency. <p><u>Existing Commingled Systems</u></p> <ul style="list-style-type: none"> - Upgrade existing commingled system according to requirements in Technical Provisions section. - Wineries with continued operation of an existing commingled process water and domestic wastewater system, or that choose to expand or install a new commingled system, are not eligible to maintain coverage of the commingled system under the Order beyond the compliance period provided in the Technical Provisions section and will obtain a separate permit to regulate the commingled wastewater. <p><u>New, expanding, or upgraded systems</u></p> <ul style="list-style-type: none"> - Submit proposed system details 120 days before start construction for the separate process water system, separate domestic wastewater system, and/or subsurface disposal area. - Complete facility changes within 180 days of Reg Bd approval. - Describe system changes and provide domestic wastewater permit in next Annual Report.
<p>17 SDS siting</p>	<p>NA</p>
<p>18 SDS operations</p>	<ul style="list-style-type: none"> - Apply process water with distribution uniformity; allow for sufficient wet and dry times; prevent wastewater from surfacing; prevent disturbance, compaction, or damage of subsurface disposal area. - Confine process water to subsurface disposal area; no discharge to surface water or stormwater drainage system.
<p>E) SALT CONTROL</p>	
<p>19 FDS threshold</p>	<p>NA</p>
<p>20 Salt control best practicable treatment or controls (BPTCs)</p>	<p>NA</p>

State Water Resources Control Board

F) OTHER REGULATORY CONSIDERATIONS	
21 Sustainability programs	<ul style="list-style-type: none"> - Sustainability program application for acceptance must be approved by State Bd or Reg Bd. - Sustainability program must contain salt and nitrogen control BPTCs to manage and minimize salt and nitrogen in winery processing, treatment, and disposal operations, facility best management practices, and a facility certification and inspection process.
22 Salt and nutrient management plans (SNMPs)	<ul style="list-style-type: none"> - Dischargers may elect to participate in, or develop, a regional SNMP. - Regional SNMP must be accepted by Reg Bd. - Regional SNMP must contain appropriate salt and nitrogen control measures to facilitate compliance with Order requirements. - Regional SNMP may include participation in a basin-wide offset program, short-term, site-specific BPTC measures, and participation in long-term basin planning efforts. - The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in an SNMP if necessary to protect water quality.
23 Local Agency Oversight Programs	<ul style="list-style-type: none"> - Local Agency application for authorization to administer Order must be approved by the State Bd or Reg Bd. - Reg Bd may limit tiers eligible for Local Agency Oversight.
24 Basin Plans	<ul style="list-style-type: none"> - Comply with Reg Bd Basin Plans and water quality objectives.
25 Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)	<ul style="list-style-type: none"> - Applicable to Dischargers within Central Valley Regional Water Board jurisdiction. - All Order provisions remain in effect, with the following exceptions: <ul style="list-style-type: none"> a) If determined by Reg Bd and consistent with CV-SALTS, Dischargers in good standing in CV-SALTS Alternative Permitting Approach for Salinity are exempt from compliance with Discharge Specifications C.1.a and C.1.c and Groundwater Limitations F.1 and F.2, as they apply to water quality objectives for salinity. b) If approved by Reg Bd and consistent with CV-SALTS, exceptions may be made to Effluent Limitations B.4 (LAA agronomic rate limit) and B.6 (SDS nitrogen effluent limit) and Groundwater Limitations F.1 and F.2, as they apply to nitrogen. c) Reg Bd may approve the functional equivalent of a Nitrogen Control Plan through a management zone implementation plan.
G) OTHER WINERY ACTIVITIES	
26 Process solids	<ul style="list-style-type: none"> - Control and contain process solids to minimize leachate formation and infiltration of waste constituents into soils. - Manage free draining liquid from process solids as process water. - Remove process solids as needed to maintain treatment system capacity. - Process solids can be land applied agronomically, or properly reused or disposed of offsite.
27 Stormwater	<ul style="list-style-type: none"> - Stormwater that contacts winery waste, processing equipment, or processing areas is managed as winery process water and covered by Order. - Stormwater controlled and contained separately from winery waste may require a separate permit.

State Water Resources Control Board

<p>28 Domestic wastewater (see also matrix section 16 'SDS treatment and disposal area' and 34 'Commingled wastewater systems')</p>	<ul style="list-style-type: none"> - Process water that contacts domestic wastewater is considered domestic wastewater. - Domestic wastewater is not covered by Order and will require a separate permit. - Solids containing domestic wastewater solids are not covered by Order. <p><u>Existing systems</u></p> <ul style="list-style-type: none"> - Discharge of treated wastewater from separate process water and domestic wastewater systems may be directed to the same subsurface disposal area if approved by the Reg Bd and the conditions are met as specified in the Order summarized in matrix section 16 'SDS treatment and disposal area'. <p><u>New or expanding systems</u></p> <ul style="list-style-type: none"> - No new or expanding commingled wastewater treatment or disposal systems. - Facility must store, convey, and treat process water separately from domestic wastewater -- same as above for existing systems.
<p>29 Wastewater not covered by Order</p>	<ul style="list-style-type: none"> - Wastewater from public assembly facility events and recreational vehicles requires a separate permit. - Distilleries and stillage (distillation waste) are not covered by Order. - Recycled water requires a separate permit.
<p>H) TECHNICAL PROVISIONS</p>	
<p>30 Sampling upgrades</p>	<ul style="list-style-type: none"> - Complete sampling and analysis facility upgrades within 90 days of NOA.
<p>31 Salt control BPTCs</p>	<p>NA</p>
<p>32 Spill prevention and emergency response plan</p>	<p>NA</p>
<p>33 SDS discharge rate</p>	<p>NA</p>
<p>34 Commingled wastewater systems (see also matrix section 16 'SDS treatment and disposal area' and 28 'Domestic wastewater')</p>	<p><u>New or expanding systems</u></p> <ul style="list-style-type: none"> - No new or expanding commingled domestic wastewater and process water systems. <p><u>Existing systems only</u></p> <ul style="list-style-type: none"> - Within 3 years of NOA, either have: <ul style="list-style-type: none"> a) Separate permit for existing commingled domestic wastewater and process water system, or b) Completed modifications to treat domestic wastewater and process water separately; separate permit for domestic system. Obtained Reg Bd approval if treated effluents from both systems will be directed to the same subsurface disposal system.
<p>35 Salt Control Plan</p>	<p>NA</p>
<p>36 Nitrogen Control Plan</p>	<p>NA</p>
<p>37 Groundwater monitoring</p>	<p>NA</p>

State Water Resources Control Board

38 Groundwater monitoring well installation	NA
I) MONITORING AND REPORTING	
	<p><u>NOTES</u></p> <ul style="list-style-type: none"> - Average daily flow method means as measured or estimated during the first seven days of the discharge occurring each month. - Model MRP General Minerals are: Alkalinity Calcium Nitrate Sodium FDS Bicarbonate Magnesium Phosphorous Chloride TDS Carbonate Hardness Potassium Sulfate
39 Monitoring reports	<ul style="list-style-type: none"> - Submit Compliance Letter for any month with Order violation or exceedance. Also submit Compliance Letter as transmittal letter for each monitoring report. - Reporting period Jan-Dec - due first day of second month after reporting period. - Submit Annual Report each calendar year. <ul style="list-style-type: none"> a) Reporting period Jan-Dec - due March 1 b) Tier 1: abbreviated Annual Report format provided.
40 Source and supplemental waters	NA
41 Winery effluent	<p>Winery effluent = process water discharge from winery, including process water from outdoor processing areas, measured prior to treatment in a pond, LAA, or SDS.</p> <ul style="list-style-type: none"> - Flow (continuous, daily, or average daily flow) -- metered or calculated - Days of operation (daily) -- observation
42 Process Water Ponds	NA
43 Land application -- Effluent to land	NA
44 Land application area	NA
45 Subsurface disposal system -- Settling tank	NA
46 Subsurface disposal system -- Effluent to disposal area	NA
47 Subsurface disposal area	NA
48 Solids	NA
49 Groundwater	NA

State Water Resources Control Board

General Winery Order Requirements Matrix - Tier 2

No.	Condition	Tier 2
A) TIERS AND ENROLLMENT		
1 Tier structure		<p style="text-align: center;">30,001 - 300,000 gal/yr</p> <ul style="list-style-type: none"> - Tier determined by annual facility process water design or permitted flow by the Reg Bd. - Facility discharge flow limit set equal to or less than the permitted annual design flow stated in Notice of Applicability (NOA). [The permitted flow shall not exceed the design flow.] <p><u>Notes</u></p> <ul style="list-style-type: none"> - Exempt facilities: Reg Bd can direct facility to enroll as Tier 1 if facility determined to violate Order prohibitions or conditions, pose a threat to water quality, high density of wineries located in an area. - Tier 1: Reg Bd can direct facility to enroll as Tier 2 if there is a high density of wineries, facility is determined to violate Order prohibitions or conditions, or facility is determined to pose a threat to water quality. - Facilities with less than 5 years of historical annual winery effluent data can provide an accurate alternative calculation and description in the NOI Technical Report for Reg Bd review.
2 Enrollment		<p><u>Existing facilities</u></p> <ul style="list-style-type: none"> - If unpermitted, enroll within 3 years of Order adoption or as notified by Reg Bd. - If permitted, enroll when existing permit expires or comes up for renewal, or as notified by Reg Bd. <p><u>New or expanding facilities</u></p> <ul style="list-style-type: none"> - Enroll 180 days before start of operations. <p><u>Note</u></p> <ul style="list-style-type: none"> - Reg Bd may issue individual WDRs in lieu of requiring Order coverage if an individual WDR is more protective of water quality.
3 Application for coverage		<ul style="list-style-type: none"> - Submit Notice of Intent (NOI) (Attachment B), technical report (Attachment C), and filing fee. NOI and technical report together make up the report of waste discharge (ROWD). If applicable, include a proposed compliance schedule in the technical report. - Reg Bd to issue a site-specific NOA that includes a site-specific monitoring and reporting program (MRP) and approved compliance schedule. - New or expanding facilities: Expected to comply with Order at onset of operations.
4 Termination of coverage		<ul style="list-style-type: none"> - Submit Notice of Termination (NOT) (Attachment D) at least 120 days before stopping discharge activities. - Discharger is responsible for fees and Order requirements until NOT is approved by Reg Bd.

State Water Resources Control Board

<p>5 Fees</p>	<p><u>Filing fee</u> - Application filing fee serves as first annual fee.</p> <p><u>Annual fee</u> - Per the fee schedule that is adopted by the State Bd. - Reduced fees may be available if enrolled in a sustainability program and/or Local Agency Oversight Program.</p>
<p>6 California Environmental Quality Act (CEQA)</p>	<p><u>All facilities</u> - Prepared mitigated negative declaration to cover existing, new, and expanding facilities. - Facilities must comply with mitigation measures for tribal cultural resources (Attachment F).</p> <p><u>New or expanding facilities</u> - New or expanding facilities are subject to further CEQA evaluation on a site-specific basis by a Local Agency or Reg Bd.</p>
<p>B) PROCESS WATER PONDS</p>	
<p>7 Pond capacity</p>	<p><u>Existing ponds</u> - May continue operating pond at present size if all other Order requirements met. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance. - Reg Bd may require pond to comply with the pond size design standard within 3 years if existing pond has had, or has potential for, frequent or significant spills.</p> <p><u>New or expanding ponds</u> - Sized to: a) 100-year, 24-hour peak storm design standard, or b) At least 25-year, 24-hour peak storm design standard with Reg Bd approval; must submit technical report with spill. - Demonstrate capacity with normal year and wet year water balances. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond construction.</p>

State Water Resources Control Board

<p>8 Pond hydraulic conductivity</p>	<p><u>Existing ponds</u></p> <ul style="list-style-type: none"> - May continue operating pond at present lined or unlined state if all other Order requirements met. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance. - Reg Bd may require pond to comply with pond liner requirements within 5 years if unlined pond poses a higher threat to water quality (e.g., within a large concentration of unlined ponds), or if existing pond has caused, or has potential to cause, groundwater pollution. <p><u>New or expanding ponds</u></p> <ul style="list-style-type: none"> - No unlined ponds. - Meet hydraulic conductivity standard of 1×10^{-6} cm/s using a clay, concrete, or synthetic liner, or with an equivalent engineered alternative approved by Reg Bd. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond liner installation or retrofit.
<p>9 Pond siting</p>	<ul style="list-style-type: none"> - Pond Base must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: <ul style="list-style-type: none"> a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality. - Pond sited to prevent inundation or washout based on Federal Emergency Management Agency (FEMA) 100-year base flood elevation. - Construction or rehabilitation of berms or levees shall be done by, or under supervision of, a qualified California Registered Civil Engineer or Certified Engineering Geologist.
<p>10 Pond operations</p>	<ul style="list-style-type: none"> - Managed, operated, and maintained to protect containment integrity, prevent overtopping or structural failure, and prevent damage from burrowing animals. Repair damage as soon as possible. - Minimum 2 feet of freeboard. - Minimum dissolved oxygen (DO) of 1.0 mg/L at upper one foot of pond. - Pond to have sufficient capacity to accommodate peak process water (crush season) flows and precipitation by September 1. - Pond to be lined or shown to be structurally sound and operating with minimal leaking.
<p>11 Pond performance</p>	<p>NA</p>

State Water Resources Control Board

C) LAND APPLICATION AREA (LAA) - Applies to irrigation of crops or planted landscaping using winery process water	
12 Loading rate limits	<p><u>Crop nutrients (e.g., nitrogen)</u></p> <ul style="list-style-type: none"> - Land apply at agronomic rate, considering crop, plant nutrient demand (crop uptake), soil, climate, irrigation method and efficiency, leaching fraction, and factors that impact plant available nitrogen. - Use annual nitrogen balance to show compliance with agronomic rate. Account for nitrogen from all sources (e.g., process water, supplemental water, process solids, fertilizers, compost, and soil amendments) applied to each individual management unit. <p><u>Biochemical oxygen demand (BOD)</u></p> <ul style="list-style-type: none"> - 100 lb/ac/d average loading per irrigation cycle. - Irrigation cycle = days of application plus dry days between successive applications. - BOD loading rate calculated for each individual management unit using applied process water volume, applied acreage, and moving average of the three most recent BOD process water results.
13 Land application area operations	<ul style="list-style-type: none"> - Irrigate with distribution uniformity; infiltrate within 48 hours (no ponding). - Confine irrigation water to land application area; no offsite runoff; no discharge to surface water or stormwater drainage system. - No application of process water solids or water to the LAA when rainfall is expected within 24 hours of forecasted precipitation with a greater than 50-percent probability of occurring, during precipitation events, or when the ground is saturated. - Apply process solids uniformly; incorporate into soil within 72 hours. - No process water storage in low or unpressurized pipelines, or in ditches.
D) SUBSURFACE DISPOSAL SYSTEM (SDS)	
14 SDS discharge flow limit	<ul style="list-style-type: none"> - Flow limit of 1 gal/sqft/d (gallon per square foot of discharge trench per day).

State Water Resources Control Board

<p>15 SDS effluent limits</p>	<p>Discharge limits to subsurface disposal area:</p> <ul style="list-style-type: none"> - Total nitrogen of 10 mg/L - BOD of 300 mg/L - TSS of 330 mg/L <p><u>Existing SDS</u></p> <ul style="list-style-type: none"> - If nitrogen limit exceeded for a rolling average of three consecutive samples, submit Nitrogen Control Plan if directed by Reg Bd. <p><u>New or expanding SDS</u></p> <ul style="list-style-type: none"> - If nitrogen limit exceeded for a rolling average of three consecutive samples, submit Nitrogen Control Plan. <p>In lieu of the SDS effluent limits, discharger can demonstrate compliance with a groundwater limitation of 10 mg/L nitrate as N or total Nitrogen at 10 mg/L:</p> <ol style="list-style-type: none"> a) Submit a request in the NOI for GWM. b) Reg Bd approval required [The request is subject to review and approval, following any necessary antidegradation analysis, by the regional water board after a public notice and opportunity for written comments.] c) Technical provision section requirements apply to the GWM installation and reporting schedule is for tier 4 GWM.
<p>16 SDS treatment and disposal area <i>(see also matrix section 28 'Domestic wastewater' and 34 'Commingled wastewater systems')</i></p>	<p>Treated wastewater from separate process water and domestic wastewater systems may be directed to same subsurface disposal area if approved by Reg Bd. Shedule not to exceed 3 years from NOA issuance.</p> <ol style="list-style-type: none"> a) Process water treated separately from domestic wastewater; no commingling of untreated waste. b) Process water system and subsurface disposal area complies with all Order requirements. c) Domestic wastewater system regulated under separate permit through Reg Bd or Local Agency. <p><u>Existing commingled systems</u></p> <ul style="list-style-type: none"> - Upgrade existing commingled system according to requirements in Technical Provisions section. - Wineries with continued operation of an existing commingled process water and domestic wastewater system, or that choose to expand or install a new commingled system, are not eligible to maintain coverage of the commingled system under the Order beyond the compliance period provided in the Technical Provisions section and will obtain a separate permit to regulate the commingled wastewater. <p><u>New, expanding, or upgraded systems</u></p> <ul style="list-style-type: none"> - Submit proposed system details 120 days before start construction for the separate process water system, separate domestic wastewater system, and/or subsurface disposal area. - Complete facility changes within 180 days of Reg Bd approval. - Describe system changes and provide domestic wastewater permit in next Annual Report.

State Water Resources Control Board

<p>17 SDS siting</p>	<ul style="list-style-type: none"> - Lowest point of SDS distribution and disposal components must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: <ul style="list-style-type: none"> a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality. - Subsurface disposal area sized to receive and treat peak process water volume and, if applicable, peak domestic wastewater volume and have reserve area for 100-percent redundancy.
<p>18 SDS operations</p>	<ul style="list-style-type: none"> - Subsurface disposal area divided into multiple fields or subsections to alternate discharge area. - Apply process water with distribution uniformity; allow for sufficient wet and dry times; prevent wastewater from surfacing; prevent disturbance, compaction, or damage of subsurface disposal area. - Confine process water to subsurface disposal area; no discharge to surface water or stormwater drainage system. - Maintain settling tanks as recommended by manufacturer; more often if needed for optimal system operations, or if sludge or scum layers meet maximum levels.
<p>E) SALT CONTROL</p>	
<p>19 FDS threshold</p>	<p>FDS threshold = annual average flow-weighted FDS concentration (in mg/L) of facility source water + 320 mg/L.</p> <ul style="list-style-type: none"> - Flow-weighted annual average FDS of process water discharge from winery, including process water from outdoor processing areas, measured prior to treatment in a pond, LAA, or SDS shall not exceed FDS threshold. - If exceed FDS threshold, submit Salt Control Plan if directed by Reg Bd.
<p>20 Salt control best practicable treatment or controls (BPTCs)</p>	<ul style="list-style-type: none"> - Minimum salt control BPTCs required; includes good housekeeping, source control, solids management, sodium substitution, and chemical reduction BPTCs unless technologically or economically infeasible. - Discharge of water softener brine prohibited.

State Water Resources Control Board

F) OTHER REGULATORY CONSIDERATIONS	
<p>21 Sustainability programs</p>	<ul style="list-style-type: none"> - Sustainability program application for acceptance must be approved by State Bd or Reg Bd. - Sustainability program must contain salt and nitrogen control BPTCs to manage and minimize salt and nitrogen in winery processing, treatment, and disposal operations, facility best management practices, and a facility certification and inspection process. <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - If Salt Control Plan required, Discharger can enroll and implement sustainability program salt control and reduction BPTC measures in lieu of preparing a site-specific Salt Control Plan if program measures are appropriate for compliance with Order requirements. - Discharger must certify salt control measures are implemented in the Annual Report. <p><u>Nitrogen Control Plan</u></p> <ul style="list-style-type: none"> - <u>For sites with LAA:</u> If Nitrogen Control Plan required, Discharger can enroll and implement sustainability program nitrogen control and reduction BPTC measures in lieu of preparing a site-specific Nitrogen Control Plan if program measures are appropriate for compliance with Order requirements. - Discharger must certify nitrogen control measures are implemented in the Annual Report. <p>The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in a sustainability program if necessary to protect water quality.</p>
<p>22 Salt and nutrient management plans (SNMPs)</p>	<ul style="list-style-type: none"> - Dischargers may elect to participate in, or develop, a regional SNMP. - Regional SNMP must be accepted by Reg Bd. - Regional SNMP must contain appropriate salt and nitrogen control measures to facilitate compliance with Order requirements. - Regional SNMP may include participation in a basin-wide offset program, short-term, site-specific BPTC measures, and participation in long-term basin planning efforts. - The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in an SNMP if necessary to protect water quality. <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - If Salt Control Plan required, Discharger can implement regional SNMP salt control measures in lieu of preparing a site-specific Salt Control Plan if SNMP measures address discharges and requirements of the Order. - Discharger must certify salt control measures are implemented.

State Water Resources Control Board

<p>22 Salt and nutrient management plans (continued)</p>	<p><u>Nitrogen Control Plan</u></p> <ul style="list-style-type: none"> - For sites with LAA and/or SDS: If Nitrogen Control Plan required, Discharger can implement regional SNMP nitrogen control measures in lieu of preparing a site-specific Nitrogen Control Plan if SNMP measures address discharges and requirements of the Order. - Discharger must certify nitrogen control measures are implemented.
<p>23 Local Agency Oversight Programs</p>	<ul style="list-style-type: none"> - Local Agency application for authorization to administer Order must be approved by the State Bd or Reg Bd. - Reg Bd may limit tiers eligible for Local Agency Oversight. - Local Agency administers Order and provides oversight; must adhere to requirements in Order and Attachment E. - A Discharger enrolled/enrolling in the local program subject to this Order must also enroll in the Order for coverage. - State Bd or Reg Bd issues NOA, MRP, and, if applicable, a compliance schedule. - State Bd and Reg Bd retain enforcement authority.
<p>24 Basin Plans</p>	<ul style="list-style-type: none"> - Comply with Reg Bd Basin Plans and water quality objectives.
<p>25 Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)</p>	<ul style="list-style-type: none"> - Applicable to Dischargers within Central Valley Regional Water Board jurisdiction. - All Order provisions remain in effect, with the following exceptions: <ul style="list-style-type: none"> a) If determined by Reg Bd and consistent with CV-SALTS, Dischargers in good standing in CV-SALTS Alternative Permitting Approach for Salinity are exempt from compliance with Discharge Specifications C.1.a and C.1.c and Groundwater Limitations F.1 and F.2, as they apply to water quality objectives for salinity. b) If approved by Reg Bd and consistent with CV-SALTS, exceptions may be made to Effluent Limitations B.4 (LAA agronomic rate limit) and B.6 (SDS nitrogen effluent limit) and Groundwater Limitations F.1 and F.2, as they apply to nitrogen. c) Reg Bd may approve the functional equivalent of a Nitrogen Control Plan through a management zone implementation plan.
<p>G) OTHER WINERY ACTIVITIES</p>	
<p>26 Process solids</p>	<ul style="list-style-type: none"> - Control and contain process solids to minimize leachate formation and infiltration of waste constituents into soils. - Manage free draining liquid from process solids as process water. - Remove process solids as needed to maintain treatment system capacity. - Process solids can be land applied agronomically, or properly reused or disposed of offsite.
<p>27 Stormwater</p>	<ul style="list-style-type: none"> - Stormwater that contacts winery waste, processing equipment, or processing areas is managed as winery process water and covered by Order. - Stormwater controlled and contained separately from winery waste may require a separate permit.

State Water Resources Control Board

<p>28 Domestic wastewater <i>(see also matrix section 16 'SDS treatment and disposal area' and 34 'Commingled wastewater systems')</i></p>	<ul style="list-style-type: none"> - Process water that contacts domestic wastewater is considered domestic wastewater. - Domestic wastewater is not covered by Order and will require a separate permit. - Solids containing domestic wastewater solids are not covered by Order. <p><u>Existing systems</u> Discharge of treated wastewater from separate process water and domestic wastewater systems may be directed to the same subsurface disposal area if approved by the Reg Bd and the conditions are met as specified in the Order summarized in matrix section 16 'SDS treatment and disposal area'.</p> <p><u>New or expanding systems</u></p> <ul style="list-style-type: none"> - No new or expanding commingled wastewater treatment or disposal systems. - Facility must store, convey, and treat process water separately from domestic wastewater -- same as above for existing systems.
<p>29 Wastewater not covered by Order</p>	<ul style="list-style-type: none"> - Wastewater from public assembly facility events and recreational vehicles requires a separate permit. - Distilleries and stillage (distillation waste) are not covered by Order. - Recycled water requires a separate permit.
<p>H) TECHNICAL PROVISIONS</p>	
<p>30 Sampling upgrades</p>	<ul style="list-style-type: none"> - Complete sampling and analysis facility upgrades within 90 days of NOA.
<p>31 Salt control BPTCs</p>	<p><u>Existing facilities:</u> Implement required salt control BPTC measures within 90 to 180 days of NOA, as noted in Order.</p> <p><u>New or expanding facilities:</u> Implement BPTCs at onset of facility operations.</p>
<p>32 Spill prevention and emergency response plan</p>	<p>NA</p>
<p>33 SDS discharge rate</p>	<p><u>Existing systems only</u> Within 3 years of NOA, complete system changes needed to comply with daily discharge flow limit.</p>
<p>34 Commingled wastewater systems <i>(see also matrix section 16 'SDS treatment and disposal area' and 28 'Domestic wastewater')</i></p>	<p><u>New or expanding systems</u></p> <ul style="list-style-type: none"> - No new or expanding commingled domestic wastewater and process water systems. <p><u>Existing systems only</u> Within 3 years of NOA, either have:</p> <ol style="list-style-type: none"> a) Separate permit for existing commingled domestic wastewater and process water system, or b) Completed modifications to treat domestic wastewater and process water separately; separate permit for domestic system. Obtained Reg Bd approval if treated effluents from both systems will be directed to the same subsurface disposal system.

State Water Resources Control Board

35 Salt Control Plan	<ul style="list-style-type: none"> - If Salt Control Plan required, submit within 1 year of exceeding FDS threshold or from Reg Bd notice. - Complete proposed facility changes within 1 year of Salt Control Plan approval. - Alternatively, within 90 days of exceeding FDS threshold or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Salt Control Plan. - Complete proposed facility changes within 1 year of notification of intent.
36 Nitrogen Control Plan	<ul style="list-style-type: none"> - If Nitrogen Control Plan required, submit within 1 year of exceeding SDS effluent nitrogen limit, receiving GWM data indicating LAA impacts, or from Reg Bd notice. - Complete proposed facility changes within 1 year of Nitrogen Control Plan approval. - Alternatively, within 90 days of exceeding SDS effluent nitrogen limit, submitting a Semi-annual Report with GWM data indicating LAA impacts, or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Nitrogen Control Plan. - Complete proposed facility changes within 1 year of notification of intent.
37 Groundwater monitoring	NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).
38 Groundwater monitoring well installation	NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).
I) MONITORING AND REPORTING	
	<p><u>NOTES</u></p> <ul style="list-style-type: none"> - Average daily flow method means as measured or estimated during the first seven days of the discharge occurring each month. - Model MRP General Minerals are: Alkalinity Calcium Nitrate Sodium FDS Bicarbonate Magnesium Phosphorous Chloride TDS Carbonate Hardness Potassium Sulfate
39 Monitoring reports	<ul style="list-style-type: none"> - Submit Compliance Letter for any month with Order violation or exceedance. Also submit Compliance Letter as transmittal letter for each monitoring report. - Reporting period Jan-Dec - due first day of second month after reporting period. - Submit Annual Report each calendar year. <ul style="list-style-type: none"> a) Reporting period Jan-Dec – due March 1 b) Tier 1: abbreviated Annual Report format provided.
40 Source and supplemental waters	<ul style="list-style-type: none"> - Flow rate (continuous, daily, or average daily flow) -- metered or calculated - TDS, FDS (annually) -- grab - Flow-weighted FDS (annually) -- calculated <p><u>Supplemental water sources only</u></p> <ul style="list-style-type: none"> - TKN, NH3-N, NO3-N + NO2-N (annually) -- grab - Total N (annually) -- calculated

State Water Resources Control Board

41 Winery effluent	Same as Tier 1 requirements, plus: - TDS, FDS (quarterly) -- grab - Flow-weighted FDS (quarterly) -- calculated
42 Process Water Ponds	- Freeboard, berm condition (weekly; when pond has water) -- observation - Liner condition (when visible) -- observation - DO, pH, EC (Crush: weekly and Off-season: monthly; when pond has water) -- field measurement
43 Land application -- Effluent to land	- Sample only when discharge to land. - Flow (continuous, daily, or average daily flow) -- metered or calculated - pH, EC (bi-weekly*) -- field measurement - BOD (Crush: bi-weekly and Off-season: one-time) -- grab - TDS, FDS (Crush: monthly and Off-season: one-time) -- grab - TKN, NH3-N, NO3-N + NO2-N (monthly) -- grab - Total N (monthly) -- calculated *Field sample satisfied by pond sampling if land application discharge entirely from pond.
44 Land application area	- Monitor only when discharge to land. - Field conditions (weekly) -- observation - Cropping activities (when it occurs) -- observation - Application field no. -- observation (daily) and acreage -- measurement (daily) - Days in irrigation cycle (daily) -- observation - Process water flow (continuous, daily, or average daily flow) -- metered or calculated - Supplemental water flow (daily, or average daily flow) -- metered or estimated - Precipitation (daily) -- rain gauge - BOD day of application loading -- calculated or estimated (daily) and cycle average loading -- calculated (daily) - Nitrogen loading by source (monthly) -- calculated - Cumulative nitrogen loading (annually) -- calculated
45 Subsurface disposal system -- Settling tank	- Sludge and scum layers thicknesses (annually) -- staff gauge - Vertical distance from scum and tank outlet (annually) -- staff gauge - Vertical distance from sludge and tank outlet (annually) -- staff gauge

State Water Resources Control Board

<p>46 Subsurface disposal system -- Effluent to disposal area</p>	<ul style="list-style-type: none"> - Sample only when discharge to land. - Flow (continuous, daily, or average daily flow) -- metered or calculated - pH, EC (bi-weekly) – field measurement - BOD, TSS (Crush: bi-weekly and Off-season: one-time) -- grab - TDS, FDS (Crush: monthly and Off-season: one-time) -- grab - TKN, NH3-N, NO3-N + NO2-N (Crush: bi-weekly and Off-season: monthly) -- grab - Total N (Crush: bi-weekly and Off-season: monthly) -- calculated
<p>47 Subsurface disposal area</p>	<ul style="list-style-type: none"> - Monitor only when discharge to land. - Disposal area conditions (weekly) -- observation - Cropping activities (when it occurs) -- observation - Disposal area field no. -- observation (daily) and acreage -- measurement (daily) - Days in discharge cycle (daily) -- observation - Process water flow (continuous, daily, or average daily flow) -- metered or calculated - Hydraulic loading (daily and monthly) -- calculated - Precipitation (daily) -- rain gauge
<p>48 Solids</p>	<ul style="list-style-type: none"> - Solids source, disposal method (monthly) -- observation - Solids amount generated (monthly) -- estimated or measured - Land applied solids amount by source (annually) -- estimated or measured - Land application field no. and acreage (annually) -- observation - TKN, NH3-N, NO3-N + NO2-N (one-time during crush; each solids cleanout) -- grab - Total N (one-time during crush; each solids cleanout) -- calculated
<p>49 Groundwater</p>	<p>NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).</p>

State Water Resources Control Board

General Winery Order Requirements Matrix - Tier 3

No.	Condition	Tier 3
A) TIERS AND ENROLLMENT		
1 Tier structure	<p style="text-align: right;">300,001 - 1,000,000 gal/yr</p> <ul style="list-style-type: none"> - Tier determined by annual facility process water design or permitted flow by the Reg Bd. - Facility discharge flow limit set equal to or less than the permitted annual design flow stated in Notice of Applicability (NOA). [The permitted flow shall not exceed the design flow.] <p><u>Notes</u></p> <ul style="list-style-type: none"> - Exempt facilities: Reg Bd can direct facility to enroll as Tier 1 if facility determined to violate Order prohibitions or conditions, pose a threat to water quality, high density of wineries located in an area. - Tier 1: Reg Bd can direct facility to enroll as Tier 2 if there is a high density of wineries, facility is determined to violate Order prohibitions or conditions, or facility is determined to pose a threat to water quality. - Facilities with less than 5 years of historical annual winery effluent data can provide an accurate alternative calculation and description in the NOI Technical Report for Reg Bd review. 	
2 Enrollment	<p><u>Existing facilities</u></p> <ul style="list-style-type: none"> - If unpermitted, enroll within 3 years of Order adoption or as notified by Reg Bd. - If permitted, enroll when existing permit expires or comes up for renewal, or as notified by Reg Bd. <p><u>New or expanding facilities</u></p> <ul style="list-style-type: none"> - Enroll 180 days before start of operations. <p><u>Note</u></p> <ul style="list-style-type: none"> - Reg Bd may issue individual WDRs in lieu of requiring Order coverage if an individual WDR is more protective of water quality. 	
3 Application for coverage	<ul style="list-style-type: none"> - Submit Notice of Intent (NOI) (Attachment B), technical report (Attachment C), and filing fee. NOI and technical report together make up the report of waste discharge (ROWD). If applicable, include a proposed compliance schedule in the technical report. - Reg Bd to issue a site-specific NOA that includes a site-specific monitoring and reporting program (MRP) and approved compliance schedule. - New or expanding facilities: Expected to comply with Order at onset of operations. 	
4 Termination of coverage	<ul style="list-style-type: none"> - Submit Notice of Termination (NOT) (Attachment D) at least 120 days before stopping discharge activities. - Discharger is responsible for fees and Order requirements until NOT is approved by Reg Bd. 	

State Water Resources Control Board

<p>5 Fees</p>	<p><u>Filing fee</u> - Application filing fee serves as first annual fee.</p> <p><u>Annual fee</u> - Per the fee schedule that is adopted by the State Bd. - Reduced fees may be available if enrolled in a sustainability program and/or Local Agency Oversight Program.</p>
<p>6 California Environmental Quality Act (CEQA)</p>	<p><u>All facilities</u> - Prepared mitigated negative declaration to cover existing, new, and expanding facilities. - Facilities must comply with mitigation measures for tribal cultural resources (Attachment F).</p> <p><u>New or expanding facilities</u> - New or expanding facilities are subject to further CEQA evaluation on a site-specific basis by a Local Agency or Reg Bd.</p>
<p>B) PROCESS WATER PONDS</p>	
<p>7 Pond capacity</p>	<p><u>Existing ponds</u> - Demonstrate present pond capacity meets one of the pond size design standards. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance. - Reg Bd may require pond comply with pond size design standard within 3 years if existing pond has had, or has potential for, frequent or significant spills.</p> <p><u>New or expanding ponds</u> - Sized to: a) 100-year, 24-hour peak storm design standard, or b) At least 25-year, 24-hour peak storm design standard with Reg Bd approval; must submit technical report with spill. - Demonstrate capacity with normal year and wet year water balances. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond construction.</p>

State Water Resources Control Board

<p>8 Pond hydraulic conductivity</p>	<p><u>Existing ponds</u> Do one of the following to continue operating an existing pond: a) If pond liner ≤10 years old, show liner is equivalent to one of pond liner design standards using liner design and construction details. c) Use performance test to show pond has minimal leaking and meets hydraulic conductivity standard. d) Show pond has minimal percolation and has not caused significant groundwater degradation using at least 5 years of GWM data from an active well network designed for the pond. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance. - Reg Bd may require pond to comply with pond liner requirements within 5 years if existing pond has caused, or has potential to cause, groundwater pollution.</p> <p><u>New or expanding ponds</u> - No unlined ponds. - Meet hydraulic conductivity standard of 1×10^{-6} cm/s using a clay, concrete, or synthetic liner, or with an equivalent engineered alternative approved by Reg Bd. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond liner installation or retrofit.</p>
<p>9 Pond siting</p>	<p>- Pond Base must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality. - Pond sited to prevent inundation or washout based on Federal Emergency Management Agency (FEMA) 100-year base flood elevation. - Construction or rehabilitation of berms or levees shall be done by, or under supervision of, a qualified California Registered Civil Engineer or Certified Engineering Geologist.</p>
<p>10 Pond operations</p>	<p>- Managed, operated, and maintained to protect containment integrity, prevent overtopping or structural failure, and prevent damage from burrowing animals. Repair damage as soon as possible. - Minimum 2 feet of freeboard. - Minimum dissolved oxygen (DO) of 1.0 mg/L at upper one foot of pond. - Pond to have sufficient capacity to accommodate peak process water (crush season) flows and precipitation by September 1. - Pond to be lined or shown to be structurally sound and operating with minimal leaking.</p>

State Water Resources Control Board

<p>11 Pond performance</p>	<ul style="list-style-type: none"> - Performance test every 5 years to test for leaks. - Submit evaluation results to Reg Bd within 90 days of completing test. - Begin testing 5 years after NOA issuance, pond liner installation, a previous performance test, or decommissioning of a GWM well network at the pond, whichever is later. <p><u>Note</u></p> <ul style="list-style-type: none"> - In lieu of a pond performance test, test requirements may be satisfied using GWM data from an active well network designed for the pond to demonstrate pond has not caused groundwater degradation. - Submit evaluation results in next regularly scheduled Annual Report.
<p>C) LAND APPLICATION AREA (LAA) - Applies to irrigation of crops or planted landscaping using winery process water</p>	
<p>12 Loading rate limits</p>	<p><u>Crop nutrients (e.g., nitrogen)</u></p> <ul style="list-style-type: none"> - Land apply at agronomic rate, considering crop, plant nutrient demand (crop uptake), soil, climate, irrigation method and efficiency, leaching fraction, and factors that impact plant available nitrogen. - Use annual nitrogen balance to show compliance with agronomic rate. Account for nitrogen from all sources (e.g., process water, supplemental water, process solids, fertilizers, compost, and soil amendments) applied to each individual management unit. <p><u>Biochemical oxygen demand (BOD)</u></p> <ul style="list-style-type: none"> - 100 lb/ac/d average loading per irrigation cycle. - Irrigation cycle = days of application plus dry days between successive applications. - BOD loading rate calculated for each individual management unit using applied process water volume, applied acreage, and moving average of the three most recent BOD process water results.
<p>13 Land application area operations</p>	<ul style="list-style-type: none"> - Irrigate with distribution uniformity; infiltrate within 48 hours (no ponding). - Confine irrigation water to land application area; no offsite runoff; no discharge to surface water or stormwater drainage system. - No application of process water solids or water to the LAA when rainfall is expected within 24 hours of forecasted precipitation with a greater than 50-percent probability of occurring, during precipitation events, or when the ground is saturated. - Apply process solids uniformly; incorporate into soil within 72 hours. - No process water storage in low or unpressurized pipelines, or in ditches.
<p>D) SUBSURFACE DISPOSAL SYSTEM (SDS)</p>	
<p>14 SDS discharge flow limit</p>	<p>Flow limit of 1 gal/sqft/d (gallon per square foot of discharge trench per day).</p>

State Water Resources Control Board

<p>15 SDS effluent limits</p>	<p>Discharge limits to subsurface disposal area:</p> <ul style="list-style-type: none"> - Total nitrogen of 10 mg/L - BOD of 300 mg/L - TSS of 330 mg/L <p><u>All SDS</u></p> <ul style="list-style-type: none"> - If nitrogen limit exceeded for a rolling average of three consecutive samples, submit Nitrogen Control Plan.
<p>15 SDS effluent limits (continued)</p>	<p>In lieu of the SDS effluent limits, discharger can demonstrate compliance with a groundwater limitation of 10 mg/L nitrate as N or total Nitrogen at 10 mg/L:</p> <ol style="list-style-type: none"> a) Submit a request in the NOI for GWM. b) Reg Bd approval required [The request is subject to review and approval, following any necessary antidegradation analysis, by the regional water board after a public notice and opportunity for written comments.] c) Technical provision section requirements apply to the GWM installation and reporting schedule is for tier 4 GWM.
<p>16 SDS treatment and disposal area (see also matrix section 28 'Domestic wastewater' and 34 'Commingled wastewater systems')</p>	<p>Treated wastewater from separate process water and domestic wastewater systems may be directed to same subsurface disposal area if approved by Reg Bd. Schedule not to exceed 3 years from NOA issuance.</p> <ol style="list-style-type: none"> a) Process water treated separately from domestic wastewater; no commingling of untreated waste. b) Process water system and subsurface disposal area complies with all Order requirements. c) Domestic wastewater system regulated under separate permit through Reg Bd or Local Agency. <p><u>Existing commingled systems</u></p> <ul style="list-style-type: none"> - Upgrade existing commingled system according to requirements in Technical Provisions section. - Wineries with continued operation of an existing commingled process water and domestic wastewater system, or that choose to expand or install a new commingled system, are not eligible to maintain coverage of the commingled system under the Order beyond the compliance period provided in the Technical Provisions section and will obtain a separate permit to regulate the commingled wastewater. <p><u>New, expanding, or upgraded systems</u></p> <ul style="list-style-type: none"> - Submit proposed system details 120 days before start construction for the separate process water system, separate domestic wastewater system, and/or subsurface disposal area. - Complete facility changes within 180 days of Reg Bd approval. - Describe system changes and provide domestic wastewater permit in next Annual Report.

State Water Resources Control Board

17 SDS siting	<ul style="list-style-type: none"> - Lowest point of SDS distribution and disposal components must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: <ul style="list-style-type: none"> a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality. - Subsurface disposal area sized to receive and treat peak process water volume and, if applicable, peak domestic wastewater volume and have reserve area for 100-percent redundancy.
18 SDS operations	<ul style="list-style-type: none"> - Subsurface disposal area divided into multiple fields or subsections to alternate discharge area. - Apply process water with distribution uniformity; allow for sufficient wet and dry times; prevent wastewater from surfacing; prevent disturbance, compaction, or damage of subsurface disposal area. - Confine process water to subsurface disposal area; no discharge to surface water or stormwater drainage system. - Maintain settling tanks as recommended by manufacturer; more often if needed for optimal system operations, or if sludge or scum layers meet maximum levels.
E) SALT CONTROL	
19 FDS threshold	<p>FDS threshold = annual average flow-weighted FDS concentration (in mg/L) of facility source water + 320 mg/L.</p> <ul style="list-style-type: none"> - Flow-weighted annual average FDS of process water discharge from winery, including process water from outdoor processing areas, measured prior to treatment in a pond, LAA, or SDS shall not exceed FDS threshold. - If exceed FDS threshold, submit Salt Control Plan if directed by Reg Bd.
20 Salt control best practicable treatment or controls (BPTCs)	<ul style="list-style-type: none"> - Minimum salt control BPTCs required; includes good housekeeping, source control, solids management, sodium substitution, and chemical reduction BPTCs unless technologically or economically infeasible. - Discharge of water softener brine prohibited.

State Water Resources Control Board

F) OTHER REGULATORY CONSIDERATIONS	
<p>21 Sustainability programs</p>	<ul style="list-style-type: none"> - Sustainability program application for acceptance must be approved by State Bd or Reg Bd. - Sustainability program must contain salt and nitrogen control BPTCs to manage and minimize salt and nitrogen in winery processing, treatment, and disposal operations, facility best management practices, and a facility certification and inspection process. <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - Reg Bd may require submittal of a site-specific Salt Control Plan in addition to complying with the sustainability program measures. - Discharger must certify salt control measures are implemented in the Annual Report. <p><u>Nitrogen Control Plan</u></p> <ul style="list-style-type: none"> - <u>For sites with LAA:</u> Reg Bd may require submittal of a site-specific Nitrogen Control Plan in addition to complying with the sustainability program measures. - Discharger must certify nitrogen control measures are implemented in the Annual Report. - The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in a sustainability program if necessary to protect water quality.
<p>22 Salt and nutrient management plans (SNMPs)</p>	<ul style="list-style-type: none"> - Dischargers may elect to participate in, or develop, a regional SNMP. - Regional SNMP must be accepted by Reg Bd. - Regional SNMP must contain appropriate salt and nitrogen control measures to facilitate compliance with Order requirements. - Regional SNMP may include participation in a basin-wide offset program, short-term, site-specific BPTC measures, and participation in long-term basin planning efforts. - The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in an SNMP if necessary to protect water quality. <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - Reg Bd may require submittal of a site-specific Salt Control Plan in addition to complying with the regional SNMP measures. <p><u>Nitrogen Control Plan</u></p> <ul style="list-style-type: none"> - <u>For sites with LAA and/or SDS:</u> Reg Bd may require submittal of a site-specific Nitrogen Control Plan in addition to complying with the regional SNMP measures.

State Water Resources Control Board

<p>23 Local Agency Oversight Programs</p>	<ul style="list-style-type: none"> - Local Agency application for authorization to administer Order must be approved by the State Bd or Reg Bd. - Reg Bd may limit tiers eligible for Local Agency Oversight. - Local Agency administers Order and provides oversight; must adhere to requirements in Order and Attachment E. - A Discharger enrolled/enrolling in the local program subject to this Order must also enroll in the Order for coverage. - State Bd or Reg Bd issues NOA, MRP, and, if applicable, a compliance schedule. - State Bd and Reg Bd retain enforcement authority.
<p>24 Basin Plans</p>	<ul style="list-style-type: none"> - Comply with Reg Bd Basin Plans and water quality objectives.
<p>25 Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)</p>	<ul style="list-style-type: none"> - Applicable to Dischargers within Central Valley Regional Water Board jurisdiction. - All Order provisions remain in effect, with the following exceptions: <ul style="list-style-type: none"> a) If determined by Reg Bd and consistent with CV-SALTS, Dischargers in good standing in CV-SALTS Alternative Permitting Approach for Salinity are exempt from compliance with Discharge Specifications C.1.a and C.1.c and Groundwater Limitations F.1 and F.2, as they apply to water quality objectives for salinity. b) If approved by Reg Bd and consistent with CV-SALTS, exceptions may be made to Effluent Limitations B.4 (LAA agronomic rate limit) and B.6 (SDS nitrogen effluent limit) and Groundwater Limitations F.1 and F.2, as they apply to nitrogen. c) Reg Bd may approve the functional equivalent of a Nitrogen Control Plan through a management zone implementation plan.
<p>G) OTHER WINERY ACTIVITIES</p>	
<p>26 Process solids</p>	<ul style="list-style-type: none"> - Control and contain process solids to minimize leachate formation and infiltration of waste constituents into soils. - Manage free draining liquid from process solids as process water. - Remove process solids as needed to maintain treatment system capacity. - Process solids can be land applied agronomically, or properly reused or disposed of offsite.
<p>27 Stormwater</p>	<ul style="list-style-type: none"> - Stormwater that contacts winery waste, processing equipment, or processing areas is managed as winery process water and covered by Order. - Stormwater controlled and contained separately from winery waste may require a separate permit.
<p>28 Domestic wastewater <i>(see also matrix section 16 'SDS treatment and disposal area' and 34 'Commingled wastewater systems')</i></p>	<ul style="list-style-type: none"> - Process water that contacts domestic wastewater is considered domestic wastewater. - Domestic wastewater is not covered by Order and will require a separate permit. - Solids containing domestic wastewater solids are not covered by Order. <p><u>Existing systems</u> Discharge of treated wastewater from separate process water and domestic wastewater systems may be directed to the same subsurface disposal area if approved by the Reg Bd and the conditions are met as specified in the Order summarized in matrix section 16 'SDS treatment and disposal area'.</p>

State Water Resources Control Board

28 Domestic wastewater (continued)	<u>New or expanding systems</u> - No new or expanding commingled wastewater treatment or disposal systems. - Facility must store, convey, and treat process water separately from domestic wastewater -- same as above for existing systems.
29 Wastewater not covered by Order	- Wastewater from public assembly facility events and recreational vehicles requires a separate permit. - Distilleries and stillage (distillation waste) are not covered by Order. - Recycled water requires a separate permit.
H) TECHNICAL PROVISIONS	
30 Sampling upgrades	- Complete sampling and analysis facility upgrades within 90 days of NOA.
31 Salt control BPTCs	<u>Existing facilities:</u> Implement required salt control BPTC measures within 90 to 180 days of NOA, as noted in Order. <u>New or expanding facilities:</u> Implement BPTCs at onset of facility operations.
32 Spill prevention and emergency response plan	- Prepare plan within 180 days of NOA. - Describe how facility will prevent accidental process water discharges and spill response and mitigation measures. - Have trained staff onsite and have spill prevention plan available upon request by Reg Bd.
33 SDS discharge rate	<u>Existing systems only</u> Within 3 years of NOA, complete system changes needed to comply with daily discharge flow limit.
34 Commingled wastewater systems (see also matrix section 16 'SDS treatment and disposal area' and 28 'Domestic wastewater')	<u>New or expanding systems</u> - No new or expanding commingled domestic wastewater and process water systems. <u>Existing systems only</u> Within 3 years of NOA, either have: a) Separate permit for existing commingled domestic wastewater and process water system, or b) Completed modifications to treat domestic wastewater and process water separately; separate permit for domestic system. Obtained Reg Bd approval if treated effluents from both systems will be directed to the same subsurface disposal system.
35 Salt Control Plan	- If Salt Control Plan required, submit within 1 year of exceeding FDS threshold or from Reg Bd notice. - Complete proposed facility changes within 1 year of Salt Control Plan approval. - Alternatively, within 90 days of exceeding FDS threshold or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Salt Control Plan. - Complete proposed facility changes within 1 year of notification of intent.

State Water Resources Control Board

36 Nitrogen Control Plan	<ul style="list-style-type: none"> - If Nitrogen Control Plan required, submit within 1 year of exceeding SDS effluent nitrogen limit, receiving GWM data indicating LAA impacts, or from Reg Bd notice. - Complete proposed facility changes within 1 year of Nitrogen Control Plan approval. - Alternatively, within 90 days of exceeding SDS effluent nitrogen limit, submitting a Semi-annual Report with GWM data indicating LAA impacts, or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Nitrogen Control Plan. - Complete proposed facility changes within 1 year of notification of intent.
37 Groundwater monitoring	NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).
38 Groundwater monitoring well installation	NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).
I) MONITORING AND REPORTING	
	<p><u>NOTES</u></p> <ul style="list-style-type: none"> - Average daily flow method means as measured or estimated during the first seven days of the discharge occurring each month. - Model MRP General Minerals are: Alkalinity Calcium Nitrate Sodium FDS Bicarbonate Magnesium Phosphorous Chloride TDS Carbonate Hardness Potassium Sulfate
39 Monitoring reports	<ul style="list-style-type: none"> - Submit Compliance Letter for any month with Order violation or exceedance. Also submit Compliance Letter as transmittal letter for each monitoring report. - Reporting period Jan-Dec - due first day of second month after reporting period. - Submit Annual Report each calendar year. <ul style="list-style-type: none"> a) Reporting period Jan-Dec – due March 1 b) Tier 1: abbreviated Annual Report format provided.
40 Source and supplemental waters	<ul style="list-style-type: none"> - Flow rate (continuous or daily) -- metered or calculated - TDS, FDS (annually) -- grab - Flow-weighted FDS (annually) -- calculated <p><u>Supplemental water sources only</u></p> <ul style="list-style-type: none"> - TKN, NH3-N, NO3-N + NO2-N (annually) -- grab - Total N (annually) -- calculated
41 Winery effluent	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Flow (continuous or daily) – metered <p>Same as Tier 2 requirements, plus:</p> <ul style="list-style-type: none"> - TDS, FDS (monthly) -- grab - Flow-weighted FDS (monthly) -- calculated

State Water Resources Control Board

42 Process Water Ponds	<ul style="list-style-type: none"> - Freeboard, berm condition (weekly; when pond has water) -- observation - Liner condition (when visible) -- observation - DO, pH, EC (Crush: weekly and Off-season: monthly; when pond has water) -- field measurement
43 Land application -- Effluent to land	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Flow (continuous or daily) -- metered - BOD (Crush: bi-weekly and Off-season: monthly) -- grab - TDS, FDS (monthly) -- grab
44 Land application area	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Process water flow (continuous or daily) -- metered - Supplemental water flow (daily) -- metered or estimated <p>Same as Tier 2 requirements, plus:</p> <ul style="list-style-type: none"> - Process water loading, supplemental water loading, total hydraulic loading (daily) -- calculated - Salt loading from process water (monthly) -- calculated - Cumulative salt loading (annually) -- calculated
45 Subsurface disposal system -- Settling tank	<ul style="list-style-type: none"> - Sludge and scum layers thicknesses (annually) -- staff gauge - Vertical distance from scum and tank outlet (annually) -- staff gauge - Vertical distance from sludge and tank outlet (annually) -- staff gauge
46 Subsurface disposal system -- Effluent to disposal area	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Flow (continuous or daily) -- metered - BOD, TSS, TDS (Crush: bi-weekly and Off-season: monthly; when pond has water) -- grab
47 Subsurface disposal area	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Process water flow (continuous or daily) -- metered
48 Solids	<p>Same as Tier 2 requirements, except:</p> <ul style="list-style-type: none"> - Land applied solids amount by source (monthly) -- estimated or measured - Land application field no. and acreage (monthly) -- observation
49 Groundwater	NA, unless conducting GWM alternative to the SDS total nitrogen effluent limit (Tier 4 Groundwater requirements and schedule).

State Water Resources Control Board

General Winery Order Requirements Matrix - Tier 4

No.	Condition	Tier 4
A) TIERS AND ENROLLMENT		
1 Tier structure		<p style="text-align: center;">1,000,001 gal/yr - 15,000,000 gal/yr</p> <ul style="list-style-type: none"> - Tier determined by annual facility process water design or permitted flow by the Reg Bd. - Facility discharge flow limit set equal to or less than the permitted annual design flow stated in Notice of Applicability (NOA). [The permitted flow shall not exceed the design flow.] <p><u>Notes</u></p> <ul style="list-style-type: none"> - Exempt facilities: Reg Bd can direct facility to enroll as Tier 1 if facility determined to violate Order prohibitions or conditions, pose a threat to water quality, high density of wineries located in an area. - Tier 1: Reg Bd can direct facility to enroll as Tier 2 if there is a high density of wineries, facility is determined to violate Order prohibitions or conditions, or facility is determined to pose a threat to water quality. - Facilities with less than 5 years of historical annual winery effluent data can provide an accurate alternative calculation and description in the NOI Technical Report for Reg Bd review.
2 Enrollment		<p><u>Existing facilities</u></p> <ul style="list-style-type: none"> - If unpermitted, enroll within 3 years of Order adoption or as notified by Reg Bd. - If permitted, enroll when existing permit expires or comes up for renewal, or as notified by Reg Bd. <p><u>New or expanding facilities</u></p> <ul style="list-style-type: none"> - Enroll 180 days before start of operations. <p><u>Note</u></p> <ul style="list-style-type: none"> - Reg Bd may issue individual WDRs in lieu of requiring Order coverage if an individual WDR is more protective of water quality.
3 Application for coverage		<ul style="list-style-type: none"> - Submit Notice of Intent (NOI) (Attachment B), technical report (Attachment C), and filing fee. NOI and technical report together make up the report of waste discharge (ROWD). If applicable, include a proposed compliance schedule in the technical report. - Reg Bd to issue a site-specific NOA that includes a site-specific monitoring and reporting program (MRP) and approved compliance schedule. - New or expanding facilities: Expected to comply with Order at onset of operations.
4 Termination of coverage		<ul style="list-style-type: none"> - Submit Notice of Termination (NOT) (Attachment D) at least 120 days before stopping discharge activities. - Discharger is responsible for fees and Order requirements until NOT is approved by Reg Bd.

State Water Resources Control Board

<p>5 Fees</p>	<p><u>Filing fee</u> - Application filing fee serves as first annual fee.</p> <p><u>Annual fee</u> - Per the fee schedule that is adopted by the State Bd. - Reduced fees may be available if enrolled in a sustainability program and/or Local Agency Oversight Program.</p>
<p>6 California Environmental Quality Act (CEQA)</p>	<p><u>All facilities</u> - Prepared mitigated negative declaration to cover existing, new, and expanding facilities. - Facilities must comply with mitigation measures for tribal cultural resources (Attachment F).</p> <p><u>New or expanding facilities</u> - New or expanding facilities are subject to further CEQA evaluation on a site-specific basis by a Local Agency or Reg Bd.</p>
<p>B) PROCESS WATER PONDS</p>	
<p>7 Pond capacity</p>	<p><u>Existing ponds</u> - Demonstrate present pond capacity meets one of the pond size design standards. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance. - Reg Bd may require pond to comply with the pond size design standard within 3 years if existing pond has had, or has potential for, frequent or significant spills.</p> <p><u>New or expanding ponds</u> - Sized to: a) 100-year, 24-hour peak storm design standard, or b) At least 25-year, 24-hour peak storm design standard with Reg Bd approval; must submit technical report with spill. - Demonstrate capacity with normal year and wet year water balances. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond construction.</p>

State Water Resources Control Board

<p>8 Pond hydraulic conductivity</p>	<p><u>Existing ponds</u> Do one of the following to continue operating an existing pond: a) If pond liner ≤10 years old, show liner is equivalent to one of pond liner design standards using liner design and construction details. b) Use performance test to show pond has minimal leaking and meets hydraulic conductivity standard. c) Show pond has minimal percolation and has not caused significant groundwater degradation using at least 5 years of GWM data from an active well network designed for the pond. - Submit pond details in NOI and/or technical report for Reg Bd approval within 1 year of NOA issuance.</p> <p><u>New or expanding ponds</u> - No unlined ponds. - Meet hydraulic conductivity standard of 1×10^{-6} cm/s using a clay, concrete, or synthetic liner, or with an equivalent engineered alternative approved by Reg Bd. - Submit pond details in NOI and/or technical report for Reg Bd approval 120 days before start pond liner installation or retrofit.</p>
<p>9 Pond siting</p>	<p>- Pond Base must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality. - Pond sited to prevent inundation or washout based on Federal Emergency Management Agency (FEMA) 100-year base flood elevation. - Construction or rehabilitation of berms or levees shall be done by, or under supervision of, a qualified California Registered Civil Engineer or Certified Engineering Geologist.</p>
<p>10 Pond operations</p>	<p>- Managed, operated, and maintained to protect containment integrity, prevent overtopping or structural failure, and prevent damage from burrowing animals. Repair damage as soon as possible. - Minimum 2 feet of freeboard. - Minimum dissolved oxygen (DO) of 1.0 mg/L at upper one foot of pond. - Pond to have sufficient capacity to accommodate peak process water (crush season) flows and precipitation by September 1. - Pond to be lined or shown to be structurally sound and operating with minimal leaking.</p>

State Water Resources Control Board

<p>11 Pond performance</p>	<ul style="list-style-type: none"> - Performance test every 5 years to test for leaks. - Submit evaluation results to Reg Bd within 90 days of completing test. - Begin testing 5 years after NOA issuance, pond liner installation, a previous performance test, or decommissioning of a GWM well network at the pond, whichever is later. <p><u>Note</u></p> <ul style="list-style-type: none"> - In lieu of a pond performance test, test requirements may be satisfied using GWM data from an active well network designed for the pond to demonstrate pond has not caused groundwater degradation. - Submit evaluation results in next regularly scheduled Annual Report.
<p>C) LAND APPLICATION AREA (LAA) - Applies to irrigation of crops or planted landscaping using winery process water</p>	
<p>12 Loading rate limits</p>	<p><u>Crop nutrients (e.g., nitrogen)</u></p> <ul style="list-style-type: none"> - Land apply at agronomic rate, considering crop, plant nutrient demand (crop uptake), soil, climate, irrigation method and efficiency, leaching fraction, and factors that impact plant available nitrogen. - Use annual nitrogen balance to show compliance with agronomic rate. Account for nitrogen from all sources (e.g., process water, supplemental water, process solids, fertilizers, compost, and soil amendments) applied to each individual management unit. <p><u>Biochemical oxygen demand (BOD)</u></p> <ul style="list-style-type: none"> - 100 lb/ac/d average loading per irrigation cycle. - Irrigation cycle = days of application plus dry days between successive applications. - BOD loading rate calculated for each individual management unit using applied process water volume, applied acreage, and moving average of the three most recent BOD process water results.
<p>13 Land application area operations</p>	<ul style="list-style-type: none"> - Irrigate with distribution uniformity; infiltrate within 48 hours (no ponding). - Confine irrigation water to land application area; no offsite runoff; no discharge to surface water or stormwater drainage system. - No application of process water solids or water to the LAA when rainfall is expected within 24 hours of forecasted precipitation with a greater than 50-percent probability of occurring, during precipitation events, or when the ground is saturated. - Apply process solids uniformly; incorporate into soil within 72 hours. - No process water storage in low or unpressurized pipelines, or in ditches.
<p>D) SUBSURFACE DISPOSAL SYSTEM (SDS)</p>	
<p>14 SDS discharge flow limit</p>	<p>Flow limit of 1 gal/sqft/d (gallon per square foot of discharge trench per day)</p>

State Water Resources Control Board

<p>15 SDS effluent limits</p>	<p>Discharge limits to subsurface disposal area:</p> <ul style="list-style-type: none"> - Total nitrogen of 10 mg/L - BOD of 300 mg/L - TSS of 330 mg/L <p><u>All SDS</u></p> <ul style="list-style-type: none"> - If nitrogen limit exceeded for a rolling average of three consecutive samples, submit Nitrogen Control Plan. <p>In lieu of the SDS effluent limits, discharger can demonstrate compliance with a groundwater limitation of 10 mg/L nitrate as N or total Nitrogen at 10 mg/L:</p> <ol style="list-style-type: none"> a) Submit a request in the NOI for GWM. b) Reg Bd approval required [The request is subject to review and approval, following any necessary antidegradation analysis, by the regional water board after a public notice and opportunity for written comments.] c) Technical provision section requirements apply to the GWM installation and reporting schedule is for tier 4 GWM.
<p>16 SDS treatment and disposal area <i>(See also matrix section 28 'Domestic wastewater' and 34 'Commingled wastewater systems')</i></p>	<p>Treated wastewater from separate process water and domestic wastewater systems may be directed to same subsurface disposal area if approved by Reg Bd.</p> <ol style="list-style-type: none"> a) Process water treated separately from domestic wastewater; no commingling of untreated waste. b) Process water system and subsurface disposal area complies with all Order requirements. c) Domestic wastewater system regulated under separate permit through Reg Bd or Local Agency. <p><u>Commingled systems</u></p> <ul style="list-style-type: none"> - Upgrade existing commingled system according to requirements in Technical Provisions section. - Wineries with continued operation of an existing commingled process water and domestic wastewater system, or that choose to expand or install a new commingled system, are not eligible to maintain coverage of the commingled system under the Order beyond the compliance period provided in the Technical Provisions section and will obtain a separate permit to regulate the commingled wastewater. <p><u>New, expanding, or upgraded systems</u></p> <ul style="list-style-type: none"> - Submit proposed system details 120 days before start construction for the separate process water system, separate domestic wastewater system, and/or subsurface disposal area. - Complete facility changes within 180 days of Reg Bd approval. - Describe system changes and provide domestic wastewater permit in next Annual Report.
<p>17 SDS siting</p>	<ul style="list-style-type: none"> - Lowest point of SDS distribution and disposal components must be 5 feet above seasonal high-water table. A smaller separation (minimum 2 feet) may be approved by the Reg Bd if: <ol style="list-style-type: none"> a) Technical justification provided by the Discharger. b) Compliance with the five-foot separation is infeasible and site-specific conditions indicate the smaller separation will not pose a threat to water quality.

State Water Resources Control Board

18 SDS operations	<ul style="list-style-type: none"> - Subsurface disposal area divided into multiple fields or subsections to alternate discharge area. - Apply process water with distribution uniformity; allow for sufficient wet and dry times; prevent wastewater from surfacing; prevent disturbance, compaction, or damage of subsurface disposal area. - Confine process water to subsurface disposal area; no discharge to surface water or stormwater drainage system. - Maintain settling tanks as recommended by manufacturer; more often if needed for optimal system operations, or if sludge or scum layers meet maximum levels.
E) SALT CONTROL	
19 FDS threshold	<p>Same as Tiers 2 and 3 requirements, except:</p> <ul style="list-style-type: none"> - If exceed FDS threshold, submit Salt Control Plan.
20 Salt control best practicable treatment or controls (BPTCs)	<ul style="list-style-type: none"> - Minimum salt control BPTCs required; includes good housekeeping, source control, solids management, sodium substitution, and chemical reduction BPTCs unless technologically or economically infeasible. - Discharge of water softener brine prohibited.
F) OTHER REGULATORY CONSIDERATIONS	
21 Sustainability programs	<ul style="list-style-type: none"> - Sustainability program application for acceptance must be approved by State Bd or Reg Bd. - Sustainability program must contain salt and nitrogen control BPTCs to manage and minimize salt and nitrogen in winery processing, treatment, and disposal operations, facility best management practices, and a facility certification and inspection process. <p>Same as Tier 2 requirements, plus:</p> <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - Reg Bd may require submittal of a site-specific Salt Control Plan in addition to complying with the sustainability program measures. <p><u>Nitrogen Control Plan</u></p> <p><u>For sites with LAA:</u> Reg Bd may require submittal of a site-specific Nitrogen Control Plan in addition to complying with the sustainability program measures.</p> <p>The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in a sustainability program if necessary to protect water quality.</p>

State Water Resources Control Board

<p>22 Salt and nutrient management plans (SNMPs)</p>	<ul style="list-style-type: none"> - Dischargers may elect to participate in, or develop, a regional SNMP. - Regional SNMP must be accepted by Reg Bd. - Regional SNMP must contain appropriate salt and nitrogen control measures to facilitate compliance with Order requirements. - Regional SNMP may include participation in a basin-wide offset program, short-term, site-specific BPTC measures, and participation in long-term basin planning efforts. - The Reg Bd must require compliance with a site-specific Salt or Nitrogen Control Plan in addition to participation in an SNMP if necessary to protect water quality. <p>Same as Tier 2 requirements, plus:</p> <p><u>Salt Control Plan</u></p> <ul style="list-style-type: none"> - Reg Bd may require submittal of a site-specific Salt Control Plan in addition to complying with the regional SNMP measures. <p><u>Nitrogen Control Plan</u></p> <ul style="list-style-type: none"> - <u>For sites with LAA and/or SDS:</u> Reg Bd may require submittal of a site-specific Nitrogen Control Plan in addition to complying with the regional SNMP measures.
<p>23 Local Agency Oversight Programs</p>	<ul style="list-style-type: none"> - Local Agency application for authorization to administer Order must be approved by the State Bd or Reg Bd. - Reg Bd may limit tiers eligible for Local Agency Oversight. - Local Agency administers Order and provides oversight; must adhere to requirements in Order and Attachment E. - A Discharger enrolled/enrolling in the local program subject to this Order must also enroll in the Order for coverage. - State Bd or Reg Bd issues NOA, MRP, and, if applicable, a compliance schedule. - State Bd and Reg Bd retain enforcement authority.
<p>24 Basin Plans</p>	<ul style="list-style-type: none"> - Comply with Reg Bd Basin Plans and water quality objectives.
<p>25 Central Valley Salinity Alternatives for Long-term Sustainability (CV-SALTS)</p>	<ul style="list-style-type: none"> - Applicable to Dischargers within Central Valley Regional Water Board jurisdiction. - All Order provisions remain in effect, with the following exceptions: <ol style="list-style-type: none"> a) If determined by Reg Bd and consistent with CV-SALTS, Dischargers in good standing in CV-SALTS Alternative Permitting Approach for Salinity are exempt from compliance with Discharge Specifications C.1.a and C.1.c and Groundwater Limitations and F.2, as they apply to water quality objectives for salinity. b) If approved by Reg Bd and consistent with CV-SALTS, exceptions may be made to Effluent Limitations B.4 (LAA agronomic rate limit) and B.6 (SDS nitrogen effluent limit) and Groundwater Limitations F.1 and F.2, as they apply to nitrogen. c) Reg Bd may approve the functional equivalent of a Nitrogen Control Plan through a management zone implementation plan.

State Water Resources Control Board

G) OTHER WINERY ACTIVITIES	
26 Process solids	<ul style="list-style-type: none"> - Control and contain process solids to minimize leachate formation and infiltration of waste constituents into soils. - Manage free draining liquid from process solids as process water. - Remove process solids as needed to maintain treatment system capacity. - Process solids can be land applied agronomically, or properly reused or disposed of offsite.
27 Stormwater	<ul style="list-style-type: none"> - Stormwater that contacts winery waste, processing equipment, or processing areas is managed as winery process water and covered by Order. - Stormwater controlled and contained separately from winery waste may require a separate permit.
28 Domestic wastewater <i>(see also matrix section 16 'SDS treatment and disposal area' and 34 'Commingled wastewater systems')</i>	<ul style="list-style-type: none"> - Process water that contacts domestic wastewater is considered domestic wastewater. - Domestic wastewater is not covered by Order and will require a separate permit. - Solids containing domestic wastewater solids are not covered by Order. <p><u>Existing systems</u> Discharge of treated wastewater from separate process water and domestic wastewater systems may be directed to the same subsurface disposal area if approved by the Reg Bd and the conditions are met as specified in the Order summarized in matrix section 16 'SDS treatment and disposal area'.</p> <p><u>New or expanding systems</u> - No new or expanding commingled wastewater treatment or disposal systems. - Facility must store, convey, and treat process water separately from domestic wastewater -- same as above for existing systems.</p>
29 Wastewater not covered by Order	<ul style="list-style-type: none"> - Wastewater from public assembly facility events and recreational vehicles requires a separate permit. - Distilleries and stillage (distillation waste) are not covered by Order. - Recycled water requires a separate permit.
H) TECHNICAL PROVISIONS	
30 Sampling upgrades	<ul style="list-style-type: none"> - Complete sampling and analysis facility upgrades within 90 days of NOA.
31 Salt control BPTCs	<p><u>Existing facilities</u>: Implement required salt control BPTC measures within 90 to 180 days of NOA, as noted in Order.</p> <p><u>New or expanding facilities</u>: Implement BPTCs at onset of facility operations.</p>
32 Spill prevention and emergency response plan	<ul style="list-style-type: none"> - Prepare plan within 180 days of NOA. - Describe how facility will prevent accidental process water discharges and spill response and mitigation measures. - Have trained staff onsite and have spill prevention plan available upon request by Reg Bd.
33 SDS discharge rate	<p><u>Existing systems only</u> Within 3 years of NOA, complete system changes needed to comply with daily discharge flow limit.</p>

State Water Resources Control Board

<p>34 Commingled wastewater systems (see also matrix section 16 'SDS treatment and disposal area' and 28 'Domestic wastewater')</p>	<p><u>New or expanding systems</u> - No new or expanding commingled domestic wastewater and process water systems.</p> <p><u>Existing systems only</u> Within 3 years of NOA, either have: a) Separate permit for existing commingled domestic wastewater and process water system, or b) Completed modifications to treat domestic wastewater and process water separately; separate permit for domestic system. Obtained Reg Bd approval if treated effluents from both systems will be directed to the same subsurface disposal system.</p>
<p>35 Salt Control Plan</p>	<p>- If Salt Control Plan required, submit within 1 year of exceeding FDS threshold or from Reg Bd notice. - Complete proposed facility changes within 1 year of Salt Control Plan approval. - Alternatively, within 90 days of exceeding FDS threshold or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Salt Control Plan. - Complete proposed facility changes within 1 year of notification of intent.</p>
<p>36 Nitrogen Control Plan</p>	<p>- If Nitrogen Control Plan required, submit within 1 year of exceeding SDS effluent nitrogen limit, receiving GWM data indicating LAA impacts, or from Reg Bd notice. - Complete proposed facility changes within 1 year of Nitrogen Control Plan approval. - Alternatively, within 90 days of exceeding SDS effluent nitrogen limit, submitting a Semi-annual Report with GWM data indicating LAA impacts, or from Reg Bd notice, notify Reg Bd of intent (with relevant information) to enroll in a sustainability program or comply with a regional SNMP in lieu of submitting a site-specific Nitrogen Control Plan. - Complete proposed facility changes within 1 year of notification of intent.</p>

State Water Resources Control Board

37 Groundwater monitoring	<p><u>Groundwater monitoring</u></p> <ul style="list-style-type: none">- GWM well network required at feature of interest (LAA, SDS, and/or pond) to assess potential groundwater impacts unless discharger demonstrates facility meets one or more exemptions. <p><u>Exemption application</u></p> <ul style="list-style-type: none">- To apply for exemption, submit technical justification and LAA, SDS, and/or pond details to demonstrate compliance with exemption criteria.- Submit information in NOI and/or technical report for Reg Bd approval. <p><u>Exemption revocation</u></p> <ul style="list-style-type: none">- Exemption may be revoked by Reg Bd if:<ul style="list-style-type: none">a) Facility no longer meets exemption criteria.b) Facility has had frequent or significant Order violations related to offsite discharges, discharges to surface waters or stormwater drainage courses, or non-reporting of violations.<ul style="list-style-type: none">i. Pond determined to have had, or have potential for, frequent or significant spills.ii. LAA operations determined to have caused, or have potential to cause, groundwater pollution. <p><u>SDS GW monitoring exemption criteria:</u></p> <p>No exemptions; Tier 4 SDS required to have GWM wells.</p> <p><u>Pond GW monitoring exemption criteria:</u></p> <ul style="list-style-type: none">a) Pond system total volume <1 MG.b) Ponds are well managed and operate without spills. All other Order requirements met. <p><u>Existing ponds</u></p> <ul style="list-style-type: none">- Clearly state intent to request a GWM exemption in Order application and request postponement (max 1 year from NOA issuance) of MRP GWM requirements.- Submit technical justification for GWM exemption within 180 days of NOA issuance. <p><u>New or expanding ponds</u></p> <ul style="list-style-type: none">- Submit technical justification for GWM exemption at time of Order application.
----------------------------------	--

State Water Resources Control Board

<p>37 Groundwater monitoring (continued)</p>	<p><u>LAA GW monitoring exemption criteria:</u></p> <p>a) LAA site meets all of the following:</p> <ul style="list-style-type: none"> (1) Groundwater underlying LAA at least 25 ft below ground surface. (2) Nearest drinking water well located at least 0.5 mile from LAA. (3) Nearest surface water body located at least 0.5 mile from LAA. <p>b) LAA is well managed and operations comply with loading limits. All other Order requirements are met.</p> <p>OR</p> <p>c) Participate in area-wide GWM for LAAs [LAA is well managed and operations comply with loading limits. All other Order requirements are met.]</p> <ul style="list-style-type: none"> (1) Discharger must request exception in the NOI. (2) Reg Bd approval required. (3) Requires GWM constituents and frequency as specified in the MRP for Tier 4 GWM. (4) Schedule approved by the regional water board upon issuing the Notice of Applicability. (5) Requires Technical Specification Section compliance for well installation and reporting; unless substantially similar specifications are approved by the regional water board. <p><u>Existing LAA</u></p> <ul style="list-style-type: none"> - Clearly state intent to request a GWM exemption in Order application and request postponement (max 1 year from NOA issuance) of MRP GWM requirements. - Submit technical justification for GWM exemption within 180 days of NOA issuance. <p><u>New or expanding LAA</u></p> <ul style="list-style-type: none"> - Submit technical justification for GWM exemption at time of Order application.
<p>38 Groundwater monitoring well installation</p>	<p>If GWM well installation is required:</p> <ul style="list-style-type: none"> a) Within 180 days of NOA or notice of exemption revocation, submit Monitoring Well Installation Work Plan and submit Groundwater Sampling and Analysis Plan. b) Within 180 days of work plan approval, complete well installation and begin GWM. c) Within 90 days of well installation, submit Monitoring Well Installation Report.

State Water Resources Control Board

I) MONITORING AND REPORTING	
	<p><u>NOTES</u></p> <ul style="list-style-type: none"> - Average daily flow method means as measured or estimated during the first seven days of the discharge occurring each month. - Model MRP General Minerals are: Alkalinity Calcium Nitrate Sodium FDS Bicarbonate Magnesium Phosphorous Chloride TDS Carbonate Hardness Potassium Sulfate
39 Monitoring reports	<p>Same as Tiers 1, 2, and 3 requirements, plus:</p> <ul style="list-style-type: none"> - Submit Semi-annual Report twice a year. <ul style="list-style-type: none"> a) Semi-annual Report <ul style="list-style-type: none"> I. First semi-annual - reporting period Jan-June - due August 1 II. Second semi-annual - reporting period July-Dec - due March 1 (see note b). b) Second Semi-annual Report can be incorporated into Annual Report instead of submitted as a standalone report.
40 Source and supplemental waters	<p>Same as Tier 3 requirements, except:</p> <ul style="list-style-type: none"> - TDS, FDS (semi-annually) -- grab <p>Same as Tier 3 requirements, plus:</p> <ul style="list-style-type: none"> - General minerals (annually) -- grab
41 Winery effluent	<p>Same as Tier 3 requirements</p>
42 Process Water Ponds	<ul style="list-style-type: none"> - Freeboard, berm condition (weekly; when pond has water) -- observation - Liner condition (when visible) -- observation - DO, pH, EC (weekly; when pond has water) -- field measurement
43 Land application -- Effluent to land	<p>Same as Tier 3 requirements, except:</p> <ul style="list-style-type: none"> - pH, EC (weekly) -- field measurement - BOD (Crush: weekly and Off-season: bi-weekly or monthly*); when pond has water) -- 24-hr composite** - DS, FDS, TKN, NH3-N, NO3-N + NO2-N (monthly) -- 24-hr composite** <p>Same as Tier 3 requirements, plus:</p> <ul style="list-style-type: none"> General minerals (annually) -- 24-hr composite*** <p>*Can be sampled monthly if collected from pond with at least 72-hour residence time and discharge to land application area is entirely from pond. **Can be grab sample if collected from pond with at least 24-hour residence time and discharge to land application area is entirely from pond.</p>

State Water Resources Control Board

44 Land application area	Same as Tier 3 requirements
45 Subsurface disposal system -- Settling tank	<ul style="list-style-type: none"> - Sludge and scum layers thicknesses (annually) -- staff gauge - Vertical distance from scum and tank outlet (annually) -- staff gauge - Vertical distance from sludge and tank outlet (annually) -- staff gauge
46 Subsurface disposal system -- Effluent to disposal area	<p>Same as Tier 3 requirements, except:</p> <ul style="list-style-type: none"> - BOD, TSS (Crush: bi-weekly and Off-season: bi-weekly or monthly*) -- 24-hr composite** - TDS, FDS, TKN, NH3-N, NO3-N + NO2-N (Crush: bi-weekly and Off-season: bi-weekly or monthly*) -- 24-hour composite** <p>Same as Tier 3 requirements, plus: General minerals (annually) -- 24-hr composite**</p> <p>*Can be sampled monthly if collected from SDS tank (e.g., storage or settling tank) with at least 72-hour residence time and discharge to subsurface disposal area is entirely from tank. **Can be grab sample if collected from SDS tank (e.g., storage or settling tank) with at least 24-hour residence time and discharge to subsurface disposal area is entirely from tank.</p>
47 Subsurface disposal area	Same as Tier 3 requirements
48 Solids	Same as Tier 3 requirements
49 Groundwater	<ul style="list-style-type: none"> - Depth to groundwater (quarterly) -- measured - Groundwater elevation, gradient, and flow direction (quarterly) -- calculated - pH, EC (quarterly) -- field measurement - TDS, FDS, TKN, NH3, NO3-N + NO2-N (quarterly) -- grab - Total N (quarterly) -- calculated - Dissolved iron, dissolved manganese (annually) -- grab - General minerals (annually) - grab