

Regional Water Quality Control Board
North Coast Region

Executive Officer's Summary Report
August 4, 2023

ITEM #4

SUBJECT

Board Workshop on Draft General Waste Discharge Requirements for Commercial Vineyards in the North Coast Region and associated Draft Environmental Impact Report. (Chris Watt, Brenna Sullivan, and Shannon Utley).

BOARD ACTION

This item is an informational item only; no action will be taken by the Regional Water Board.

BACKGROUND AND PURPOSE

The purpose of this item is for staff to provide information to and receive feedback from the public and Regional Water Board (RWB) on Draft General Waste Discharge Requirements for Commercial Vineyards in the North Coast Region (Vineyard Order) and associated Draft Environmental Impact Report (DEIR). The Regional Water Board is currently scheduled to consider adoption of a Proposed Vineyard Order and certification of a Final EIR at a public hearing in December 2023.

According to the most recent Department of Water Resources data, there are approximately 65,000 acres of land planted to vineyards in the North Coast Region. Vineyards have the potential to discharge wastes to surface waters and groundwater and affect other related controllable water quality factors such as riparian shade. Cultivation of winegrapes involves soil disturbance and use of agricultural chemicals, both of which can generate discharges of waste (e.g., sediment, nutrients, pesticides, herbicides, fumigants, pathogens) to surface water and groundwater. The majority of North Coast vineyards are planted in the Navarro and Russian River watersheds. Like most North Coast watersheds, they are impaired for sediment and temperature and provide habitat for threatened and endangered salmonid species.

The Navarro River was added to the Clean Water Act section 303(d) list for sedimentation/siltation in 1994 citing agriculture as one of many sources of sediment. A Total Maximum Daily Load (TMDL) for sediment was approved by the U.S. EPA in December 2000 which identified vineyards as approximately two percent of the watershed area and estimated a seven percent contribution to the anthropogenic sediment load. Vineyards as a potential source of sediment can be locally significant in sub-watersheds where vineyard density is high. The TMDL assigned vineyards a watershed wide 80 percent load reduction in sediment.

The Russian River was added to the 303(d) list for sedimentation/siltation in 1998 citing agriculture as one of many sources of sediment. Sediment impacts in Russian River tributaries prompted listing the entire Russian River watershed for sediment impairment. While vineyards occupy approximately 5 percent of the watershed, vineyard density exceeds 75 percent in numerous smaller sub-watersheds. A TMDL has not yet been developed by the Regional Water Board.

The Regional Water Board has a statutory obligation under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act to regulate discharges of waste to waters of the state, restore water quality in impaired waters, and maintain existing high-quality waters.

CHRONOLOGY

In the 1990s, the Navarro and Russian River watersheds were added to the 303(d) list for sedimentation/siltation. In 2000s, the California Legislature eliminated agriculture's exemption to Waste Discharge Requirements, the State Water Resources Control Board (SRWCB) adopted the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (Nonpoint Source Policy), and the Regional Water Board began development of a North Coast Irrigated Lands Discharge Program. In 2011, the North Coast Region Irrigated Lands Discharge Program Stakeholder Advisory Group was formed and held a facilitated meeting in Redding, CA. Following input, the Regional Water Board directed staff to develop separate permits on a commodity and geographic basis in fall 2013. In spring 2017, the Regional Water Board prioritized development of general waste discharge requirements (WDRs) for vineyards and orchards. Staff led internal workgroups to scope permit requirements in 2017 and 2018.

In 2018, the SWRCB adopted certain [precedential requirements](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-2-Monitoring-Networks-and-Identification-of-Data-Gaps_ay_19.pdf) (https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Sustainable-Groundwater-Management/Best-Management-Practices-and-Guidance-Documents/Files/BMP-2-Monitoring-Networks-and-Identification-of-Data-Gaps_ay_19.pdf) in review of the Central Valley Regional Water Board 2012 General Order for Growers Within the Eastern San Joaquin River Watershed. These precedential requirements include groundwater monitoring, drinking water well testing, nitrate management planning, and grower outreach and education. For the next two years, staff continued to refine potential permit requirements and receive stakeholder feedback.

In spring 2019, staff presented the results of vineyard and orchard permit scoping and the Regional Water Board endorsed a staff recommendation to narrow the scope to a regionwide vineyard permit. By December 2019, staff provided an update to the Regional Water Board on meetings with various stakeholders, key issues, and recommended permit components for a vineyard permit.

From summer 2022 to spring 2023, staff held focus group meetings with a Technical Advisory Group (TAG) to receive feedback on specific permit components and

developed a Draft Vineyard Order. Also in 2022, a CEQA Initial Study and Notice of Preparation of an Environmental Impact Report for the Draft Vineyard Order was published and two CEQA scoping meetings were held. Incorporating feedback from CEQA scoping meetings and comments on the Initial Study, staff prepared a Draft Environmental Impact Report.

TRIBAL AND STAKEHOLDER ENGAGEMENT

Goals of Tribal and stakeholder engagement include (1) cultivating support for the Draft Vineyard Order through relationship building and feedback; (2) garnering technical input from experts to improve technical accuracy and evaluate technical and economic feasibility of implementing Order requirements; and (3) fulfilling statutory and legislative requirements.

In Summer 2022, Regional Water Board staff invited industry representatives, environmental advocates, technical service providers, and partnering agencies and organizations to join a TAG. Objectives of the TAG included (1) developing a strong technical basis for permit requirements, (2), informing the cost of compliance for monitoring and reporting, and (3) enabling an enhanced public participation process prior to public release of the Draft Vineyard Order. Between July 2022 and March 2023, the TAG provided feedback on conceptual permit requirements through a series of six Focus Group meetings covering Farm Evaluations, Erosion and Sediment Control, Streamside Managements Areas, Irrigation and Nutrient Management, and Monitoring/Reporting.

On August 8, 2022, the Regional Water Board sent a Notice of Preparation (NOP) and the Initial Study to public agencies and persons with potential interest in the project. On September 1, 2022, the Regional Water Board held an in-person scoping meeting and on September 8, 2022, a virtual scoping meeting to solicit input from agencies and interested parties on issues to be addressed in the EIR. The scoping meeting described the meeting purpose, requirements under consideration, presented an overview of the environmental review process and preparation of the EIR, and included a public comment period.

July 2022, RWB staff sent letters to Tribes listed on the AB52 list and a list of tribes provided by the Native American Heritage Commission inviting consultation and providing information about the Vineyard Order along with an invitation to the CEQA scoping meeting. No requests for consultation were received.

On June 30, 2023, the DEIR and Draft Vineyard Order were released for a 45-day public comment period, ending August 14th. The August 4, 2023, RWB meeting will include a public workshop with presentations of the draft Order and draft EIR and a question-and-answer session for attendees.

APPROACH AND OVERVIEW

The Irrigated Lands Regulatory Program (ILRP) is the statewide regulatory mechanism to control discharges from irrigated agriculture, which includes commercial vineyards.

The Draft Vineyard Order would be consistent with the ILRP, which requires the implementation and reporting of management practices, surface and groundwater quality monitoring, nitrogen reporting, adaptive management, and the option to use Third-Party programs to assist with enrollment, administration, and monitoring and reporting. Importantly, in Irrigated Lands Orders, water quality monitoring drives adaptive management feedback loops. The Draft Vineyard Order is consistent with this approach by requiring progressive management of on-farm conditions as a response to results from water quality monitoring.

Consistent with other Irrigated Lands Orders, the Draft Vineyard Order considers cumulative impacts of concentrated commercial vineyard activity on the landscape of the North Coast Region. As of 2023, approximately 1.5 percent of the land planted to commercial vineyards are located outside the Big-Navarro-Garcia, Gualala-Salmon, and Russian River Hydrologic Unit Code (HUC) HUC-8 watersheds. Under the Draft Vineyard Order, Dischargers outside these HUC-8 watersheds would be required to comply with the Order but would not be required to submit enrollment documents or conduct monitoring and reporting.

Through widespread enrollment in voluntary sustainability programs such as Fish Friendly Farming, California Certified Sustainable, LODI RULES, and Sustainability in Practice (SIP), approximately 80 percent of commercial vineyards in the North Coast are already implementing conservation practices to prevent or minimize discharges of waste. However, these voluntary conservation programs do not include feedback mechanisms that enable the Regional Water Board, Dischargers, and the public to determine whether these programs are adequately protective of water quality or whether additional or different management practices or other actions are necessary. Nor do these voluntary programs include enforceable consequences for failure to achieve water quality outcomes. The Draft Vineyard Order was developed in consideration of existing conservation practices implemented through voluntary programs and acknowledges those pre-existing programs by including grower self-assessment of farm conditions and adaptive management pathways if water quality monitoring indicates existing practices are not adequate to control the discharge of waste. Staff anticipate that participation in voluntary sustainability programs would give many growers a “head start” on compliance with the Draft Vineyard Order, insofar as conservation practices implemented via those programs help growers to meet the required management practices described in the Draft Order.

DRAFT VINEYARD ORDER OBJECTIVES AND REQUIREMENTS

The Draft Vineyard Order would regulate: (1) discharges of waste from commercial vineyards producing a marketable crop; and (2) discharges of waste from appurtenant agricultural roads. The Draft Vineyard Order would establish a regulatory mechanism, in the form of General WDRs with requirements, prohibitions, and provisions that would include: (1) enrollment and payment of fees; (2) implementation and adaption of management practices; and (3) monitoring and reporting.

Staff considered three broad objectives in developing the Draft Vineyard Order:

Objective #1 - Protect and restore beneficial uses and achieve water quality objectives specified in the Basin Plan for areas in the North Coast Hydrologic Region planted to vineyards by minimizing or preventing: (1) nitrate and pesticide discharges to groundwater; (2) nutrient and pesticide discharges surface water; (3) sediment discharges to surface water; and (4) temperature impacts to surface water from loss of riparian shade.

Objective #2 - Effectively track and quantify achievement of the stated objectives over a specific, defined time schedule.

Objective #3 - Comply with the Nonpoint Source Policy, the State Antidegradation Policy, the precedential language in the SWRCB Eastern San Joaquin Agricultural Order, the North Coast Basin Plan, and other relevant statutes and water quality plans and policies, including the Policy For The Implementation Of The Water Quality Objectives For Temperature (Temperature Implementation Policy), the Total Maximum Daily Load Implementation Policy for Sediment-Impaired Receiving Waters in the North Coast Region (Sediment TMDL Implementation Policy), and TMDLs in the North Coast Hydrologic Region.

The Draft Vineyard Order would include several minimum management practices: (1) maintain a minimum 75 percent ground cover (85 percent for seasonal roads within streamside management areas) during the winter period; (2) prevent or minimize erosion and sediment discharges from controllable sediment discharge sources; (3) improve and disconnect road drainage; (4) establish and maintain vegetated setbacks from streams and allow natural establishment and abundance of native riparian vegetation; and (5) improve existing stream crossings to prevent or minimize plugging and diversion potential.

The Draft Vineyard Order would allow Dischargers to enroll through an approved Third-Party Group or enroll individually. Dischargers enrolled individually will be responsible for completing all monitoring and reporting requirements for their enrolled parcels. The Third-Party Group may elect to conduct monitoring and reporting on behalf of their enrolled Dischargers.

DRAFT MONITORING AND REPORTING PROGRAM

The Draft Vineyard Order would require the implementation of a monitoring and reporting program (MRP) that is intended to: (1) determine the effects of waste discharges on water quality, (2) evaluate Discharger compliance with the terms and conditions of the Order, (3) initiate adaptive management as needed, and (4) support an assessment of the long-term effectiveness of the Order.

The Draft Vineyard Order would require surface water and groundwater quality monitoring at both a watershed and farm-level scale. Representative monitoring is intended to determine whether minimum management practices required by the Order address the cumulative impacts to water quality from commercial vineyards at a sub-

watershed or basin-wide scale. Monitoring at the farm-level is intended to drive adaptive management and assess individual compliance with Order requirements.

The Draft Vineyard Order would require Dischargers enrolled individually to perform edge-of-field monitoring for turbidity (as a proxy for suspended sediment concentrations) and for pesticides. Dischargers enrolled individually would also conduct groundwater trend monitoring for nitrates and general water quality parameters.

For Dischargers enrolled through a Third-Party Program, the Draft Vineyard Order would require representative tributary turbidity monitoring (as a proxy for suspended sediment concentrations) and representative tributary streambed monitoring as a method of tracking progress towards sediment conditions which are supportive of beneficial uses. Representative turbidity and streambed monitoring would occur in catchments in the highest quartile of vineyard density and tributary reaches that are within the winter steelhead or coho salmon distribution ranges. The Third-Party Program would also be required to conduct representative pesticide monitoring and groundwater trend monitoring for nitrate and general parameters. Results from all representative monitoring would be used to assess long-term effectiveness of Order requirements. Dischargers enrolled in the Third-Party Program would also be required to monitor all agricultural drainage structures for turbidity. Results from agricultural drainage structure monitoring would drive adaptive management on the farm-scale.

Groundwater monitoring requirements for drinking water supply wells are consistent with East San Joaquin Agricultural Order precedents. All Dischargers would be required to sample on-farm drinking water supply wells for nitrate and applied 6800(a) listed pesticides. Exceedances of water quality objectives would require notification of the Regional Board and all users of the drinking water well.

Under the Draft Vineyard Order, all Dischargers would be required to self-assess the conditions on their vineyard and report management practices. The Farm Evaluation is an annual inventory of management practices implemented on the Farm Area and appurtenant road network to minimize or prevent excess sediment and other waste discharges and maintain riparian shade. The Irrigation and Nitrogen Management Plan (INMP) would require growers to report total nitrogen applied (through fertilizer, compost, or irrigation water) and removed (through harvest and pruning). Growers would also report management practices implemented to minimize nitrate leaching to groundwater. Reporting of annual nitrogen budgets are precedential requirements from the East San Joaquin Order. Documentation of annual attendance of an outreach and education event would also be required. The Third-Party Group would aggregate and report Farm Evaluations and INMPs on behalf of their enrolled Dischargers. Dischargers enrolled individually would submit reports directly to the Regional Water Board.

The East San Joaquin Order also mandates planning and reporting requirements related to groundwater protection. Following collection of INMP data, the Regional Water Board would develop Groundwater Protection Targets (GPTs). GPTs are nitrogen loading rates that would not result in the degradation of groundwater within a particular township. GPTs may be used to determine whether nitrogen application rates

and management practices are protective of groundwater quality. The Third-Party Group would have the option of proposing GPTs.

In the East San Joaquin Order, the State Board defined areas of discretion Regional Boards may apply in precedential requirements. This discretion applies to the frequency of groundwater monitoring, monitored constituents, frequency of reporting, and nitrogen reporting. Staff have utilized this discretion wherever possible to ensure requirements are applicable to the conditions within the North Coast Region.

COST CONSIDERATIONS

Most existing commercial vineyards implement water quality driven management practices through participation in long-standing voluntary programs and/or within Sonoma County through the Vineyard and Orchard Erosion and Sediment Control Ordinance (VESCO) administered by the Sonoma County Agricultural Commissioner. The costs of various management practice implementation scenarios were considered in the DEIR and are presented in the Draft Vineyard Order.

In developing draft Monitoring and Reporting Program (MRP) requirements, staff considered the cost of MRP implementation for Irrigated Lands Orders within other Regions. Staff estimate the cost (annualized over 5 years) for implementing the MRP are estimated to be between \$5 to \$6 per acre for Dischargers participating through a Third-Party Group. In considering Discharger cost of compliance, several potential scenarios presented as an attachment to this Summary Report.

THIRD-PARTY PROGRAM REQUIREMENTS

Consistent with the State ILRP, direction of the East San Joaquin Order, and direction of the Nonpoint Source Policy, the Draft Vineyard Order would allow growers to enroll through a Third-Party Group. These groups often facilitate the enrollment and administration of large numbers of dischargers and enrolled acres in Irrigated Lands Orders. The role of a Draft Vineyard Order Third-Party Program would be to collect fees from enrolled Dischargers and submit payment to the SWRCB; manage communications between enrolled Dischargers, the RWB, and SWRCB; provide outreach and education events, and fulfill monitoring and reporting requirements. Monitoring and reporting requirements include the submittal of monitoring workplans and necessary technical material, representative surface water and groundwater monitoring, notifying growers of adaptive management thresholds triggered, and connecting enrolled growers to resources to assist the preparation and implementation of Water Quality Management Plans. The Third-Party Group may work with multiple entities or programs to meet one or more of the above requirements provided all Third-Party Program requirements are met. Dischargers who do not choose to enroll in a Third-Party Group may enroll in the Order and fulfill all requirements individually.

CEQA ENVIRONMENTAL IMPACT ANALYSIS

The DEIR analysis was set at a programmatic level and considered impacts from implementing reasonably foreseeable Management Practices. The types of actions that

would be undertaken by Dischargers would be consistent with Management Practices commonly employed on vineyards in the North Coast Region. In some cases, implementation of Management Practices might be subject to another regulatory process which would entail identification and mitigation of any significant environmental effects. For example, agricultural grading to develop a sediment basin would be regulated under the Sonoma County VESCO program. Therefore, other regulatory mechanisms can be expected to provide additional opportunities for minimizing and avoiding significant environmental effects.

The DEIR identified impacts of the Vineyard Order on Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Tribal Cultural Resources are less than significant with mitigations. Required mitigations are described in the Order and would be reported as part of the Annual Compliance Report.

The DEIR identified “No Impact” or “Less than Significant Impacts” from the Vineyard Order to Aesthetics, Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services, Recreation, Transportation/Traffic, and Utilities/Service Systems.

The Draft Vineyard Order has the potential to significantly impact Agricultural Resources with no feasible mitigation as a result of Streamside Area setbacks. An estimated 300 acres of agricultural land may be converted to a non-agricultural use through streamside area setbacks. The timeline for compliance with setback requirements is when a vineyard is replanted or newly planted. No alternative was identified which would fully achieve the stated objectives of the Draft Vineyard Order.

PUBLIC REVIEW OF DOCUMENTS

The Regional Water Board has completed a Draft Environmental Impact Report (EIR) that analyzes potential impacts of the Draft General Waste Discharge Requirements for Commercial Vineyards (Draft Vineyard Order) and invites public comment on the draft documents. The public is encouraged to provide comments during the 45-day public comment period which will end at 5:00pm on August 14, 2023, or during the Public Workshop to be held August 4th.

For instructions on how to view and comment on the Draft Vineyard Order and the Draft EIR, visit the [Regional Water Board website](https://www.waterboards.ca.gov/northcoast/) (<https://www.waterboards.ca.gov/northcoast/>) and look under “Announcements”.

Staff request that comments on the proposed General Order be submitted with the subject line “Comments on Draft Vineyard Order,” and any comments on the supporting Draft EIR be submitted separately with the subject line “Comments on Draft EIR for Vineyards”. Staff will provide responses to all written comments submitted. The Regional Water Board is currently scheduled to consider adoption of a Proposed Vineyard Order and certification of a Final EIR at a public hearing in December 2023.

RECOMMENDATION: NA

SUPPORTING DOCUMENTS

Cost Scenarios Attachment

Draft Order No. R1-2023-00##

Draft EIR

COST SCENARIOS ATTACHMENT

Scenario 1

50-acre vineyard, flat alluvial plain, no agricultural drainage structures or discharge locations, no streamside areas, no domestic wells, no production wells, no agricultural roads, and minimum management practices already in place, maintained, and functioning effectively.

Individual Enrollment:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$33.51/acre x 50 acres	\$1,675	N/A. Site conditions do not require monitoring.	N/A
Annual Compliance Report: \$100x3-hours	\$300		
Total	\$1,975		

Enrollment in Third-Party:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$1.35/acre x 50 acres	\$67.50	N/A. Site conditions do not require monitoring.	N/A
Farm Evaluation and INMP Reporting: \$100 x 1 hour	\$100		
Third-Party Costs: \$6/acre x 50 acres	\$300		
Total	\$467.50		

Scenario 2

100-acre vineyard, flat alluvial plain to 10 percent slopes, two agricultural drainage structures, one domestic well, no agricultural wells, no 6800(a) pesticides used, 200 linear feet of streamside area, 1,000 feet of agricultural road requiring improvements, vegetated buffers not installed, and other minimum management practices already in place, maintained, and functioning effectively.

Individual Enrollment:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$33.51/acre x 100 acres	\$3,351	Vegetated Buffer: 0.1 acres	\$500
Annual Compliance Report: \$100x3-hours	\$300	Water Quality Monitoring Plan	\$500
Agricultural Drainage Structure Sampling	\$110	Road Improvements (over ten years)	\$20,000
Domestic Well Sampling	\$110		
Total	\$3,871	Total	\$21,000

Enrollment in Third-Party:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$1.35/acre x 100 acres	\$135	Vegetated Buffer: 0.1 acres	\$500
Domestic Well Sampling	\$110	Water Quality Monitoring Plan: (through Third-Party)	\$100
Farm Evaluation and INMP Reporting: \$100 x 1 hour	\$100	Road Improvements: (over ten years)	\$20,000
Third-Party Costs: \$6/acre x 100 acres	\$600		
Total	\$945	Total	\$20,600

Scenario 3

200-acre vineyard, hillslope, 5 agricultural drainage structures, 500 linear feet of streamside area, 2,000 feet of agricultural road requiring improvements, two domestic wells, one agricultural well, use of one 6800(a) pesticide, vegetated buffer not installed, cover crop at 50 percent, and other minimum management practices already in place, maintained, and functioning effectively.

Individual Enrollment:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$33.51/acre x 200 acres	\$6,702	Vegetated Buffer: 0.29 acres x \$5,000/acre	\$1,450
Annual Compliance Report: \$100x4-hours	\$400	Water Quality Monitoring Plan	\$500
Agricultural Drainage Structure Sampling	\$275	Road Improvements (over ten years)	\$40,000
Domestic Well Sampling	\$330	Cover Crop: 50 acres x \$300/acre	\$15,000
Groundwater Trend Monitoring	\$200		
Total	\$8,107	Total	\$56,950

Enrollment in Third-Party:

Annual Items	Annual Cost	One-Time Items	One-Time Cost
State Fees: \$1.35/acre x 200 acres	\$270	Vegetated Buffer: 0.29 acres x \$5,000/acre	\$1,450
Farm Evaluation and INMP Reporting: \$100 x 3 hours	\$300	Water Quality Monitoring Plan: (through Third-Party)	\$100
Domestic Well Sampling	\$330	Road Improvements (over ten years)	\$40,000
Third-Party Costs: \$6/acre x 200 acres	\$1,200	Cover Crop: 50 acres x \$300/acre	\$15,000
Total	\$2,100	Total	\$56,550