CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
ORDER NO. R1-2023-00XX
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
COMMERCIAL VINEYARDS IN THE
NORTH COAST REGION

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

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The California Regional Water Quality Control Board, North Coast Region Finds:

I. Background and Purpose

1) The purpose of this General Waste Discharge Requirements (WDRs) for Commercial Vineyards, Order R1-2023-00XX (hereinafter Order or General Order), is to provide a water quality regulatory structure to minimize discharges of waste and to prevent adverse impacts to water resources resulting from the commercial cultivation of winegrapes (hereinafter, commercial vineyards or vineyards) on private lands within the North Coast Regional Water Quality Control Board jurisdiction (Regional Water Board). As described in the Water Quality Control Plan for the North Coast Region (Basin Plan) the region is comprised of approximately 19,400 square miles of northwestern California (see Figure 1) stretching from the California-Oregon state line to the southern boundary of the watershed of the Estero de San Antonio and Stemple Creek in Marin and Sonoma counties, and encompasses all basins draining into the Pacific Ocean, including the Lower Klamath Lake and Lost River basins.

2) There are approximately 65,000 acres of land currently planted to commercial vineyards in the North Coast Region (as shown in Figure 1) with the potential to discharge wastes to surface waters and groundwater and affect other related controllable water quality factors such as the loss of riparian shade. More than 98 percent of land planted to vineyards in the North Coast Region is located within the Big-Navarro-Garcia, Gualala-Salmon, and Russian River Hydrologic Unit Code (HUC) HUC-8 watersheds.

3) 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). If not properly managed, these discharges can degrade water quality, cause or contribute to pollution and nuisance conditions, and adversely affect beneficial uses of waters of the state. These effects can occur through the loss of riparian shade (a controllable factor) and discharges from agricultural drainage structures, irrigation return flows or tailwater, percolation, tile drain water, stormwater runoff flowing from agricultural lands, and runoff resulting from frost control or operational spills.

4) The State Water Resources Control Board (State Water Board) and Regional Water Quality Control Boards (Regional Water Boards) are the principal state agencies (collectively the Water Boards) with primary responsibility for the coordination and control of water quality for the health, safety, and welfare of the people of the state pursuant to the Porter-Cologne Water Quality Control Act

(Porter-Cologne Act, codified in Water Code Division 7). The legislature, in the Porter-Cologne Act, directed the state, through the Water Boards, to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation and to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible, and considering precipitation, topography, population, recreation, agriculture, industry, and economic development (Wat. Code §13000).

5) Numerous water bodies within the North Coast Region are listed as impaired for various pollutants including sediment, temperature, nutrients, indicator bacteria, and pesticides pursuant to United States Clean Water Act section 303(d). The United States Environmental Protection Agency (USEPA) has approved Total Maximum Daily Loads (TMDLs) to address many of these impairments in water bodies throughout the North Coast Region. Approximately 61 percent of the North Coast Region drains to sediment impaired rivers and streams (2006 Clean Water Act §303(d) list).

6) The Navarro River was added to the 303(d) list for sedimentation/siltation in 1994 citing agriculture as one of many sources of sediment. A TMDL 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.

7) The Russian River was added to the 303(d) list for sedimentation/siltation in 1998 citing agriculture as one of many sources of sediment. A TMDL has not been approved by the U.S. EPA. Sediment impacts in Russian River tributaries prompted listing the entire Russian River watershed for sediment impairment. Vineyards occupy approximately five percent of the watershed, although vineyard density exceeds 75 percent in smaller sub-watersheds.

8) This Order is consistent with the Sediment TMDL Implementation Policy by requiring Dischargers to inventory sediment discharge sites on the commercial vineyard, implement sediment and erosion control management practices, monitor management practice effectiveness, and implement adaptive management as a response to monitoring.

9) This Order is consistent with the Policy for the Implementation of the Water Quality Objective for Temperature (Temperature Implementation Policy) by requiring Dischargers to allow natural succession of native riparian vegetation. The removal of vegetation that provides shade to a waterbody is a controllable water quality factor. Riparian shade-related temperature TMDL load allocations are based on the concept of “site-specific potential effective shade,” which means the shade equivalent to that provided by topography and potential vegetation conditions at a

site. Site specific shade controls that are effective at correcting temperature impairments also operate to provide other water quality protections such as bank stability and filtering of sediment and other waste discharges.

10) The North Coast Region is home to numerous threatened and endangered species that are sensitive to excessive sediment, increased stream temperature, and loss of suitable habitat. The migration, spawning, reproduction, and early development of cold-water fish, such as Coho salmon (*Oncorhynchus kisutch*) and Chinook salmon (*O. tshawytscha)* and California steelhead trout (*O. mykiss*), are impacted in the North Coast Region due to water quality impairments and other conditions.

A. Public Participation

1) From July 20, 2022, to March 15, 2023, the Regional Water Board convened a Technical Advisory Group (TAG) to advise on conceptual options and preliminary draft regulatory language. The TAG was comprised of 34 stakeholders representing industry, environmental interests, technical service providers, partnering agencies and community organizations. The TAG provided feedback on regulatory concepts through distributed surveys and in monthly Focus Group meetings. Survey and Focus Group meeting topics included farm evaluations, sediment and erosion control requirements, streamside area requirements, Third-Party Group requirements, and the Monitoring and Reporting Program.

2) On August 8, 2022, the Regional Water Board published a Notice of Preparation and an Initial Study to begin soliciting input related to environmental review for the California Environmental Quality Act (CEQA), in preparation for developing a draft Environmental Impact Report (EIR). A 30-day public comment period was held for the Notice of Preparation and Initial Study. In September 2022, Regional Water Board staff held a series of public CEQA scoping meetings in person and virtually. Input received during the public comment period and public scoping meetings has been considered in the development of the draft EIR.

3) On June 30, 2023, the Regional Water Board published the draft Order and draft EIR and began a 45-day public comment period.

4) In August 2023, Regional Water Board staff conducted outreach meetings, which included presentations of the draft Order and draft EIR, and a question-and-answer session for attendees. These outreach meetings were conducted virtually via the Zoom platform, and in person. The outreach done by the Regional Water Board is consistent with the requirements of Assembly Bills (AB) 52 and 2108 for coordination with Native American tribes and disadvantaged communities.

5) The Regional Water Board, in a public hearing held on December XX, 2023, has heard and considered all comments pertaining to the discharge and proposed Order. After considering all comments pertaining to this General Permit during the December public hearing, this Order was found consistent with the findings in

Section I of this Order.

6) Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and title 23 California Code of Regulations sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except if the thirtieth day following the date of adoption falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100
Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml

B. Scope of Order

1) This Order regulates (1) discharges of waste from commercial vineyards producing a marketable crop; and (2) discharges of waste from appurtenant agricultural roads[1].

2) Commercial vineyards located outside the Big-Navarro-Garcia, Gualala-Salmon, and Russian River Hydrologic Unit Code (HUC) HUC-8 watersheds (North Coast viticultural region) shall comply with this Order but are not required to submit enrollment documents or conduct monitoring and reporting. As of 2019, commercial vineyards outside the aforementioned HUC-8 watersheds comprise about 1.5 percent of the land planted to commercial vineyards in the North Coast Region (approximately 975 acres).

3) For the purposes of this Order, the term ‘vineyard’ is limited to commercial winegrape vineyards.

4) For the purposes of this Order, a commercial vineyard is land planted in winegrapes including vineyard avenues and appurtenant agricultural roads/structures with one or more of the following characteristics: (1) The

[1] Appurtenant Agricultural Road-an agricultural road used for vineyard operations which connects or is used to access vineyard blocks under the ownership or control of the vineyard landowner or operator.

landowner or operator holds a current Operator Identification Number/Permit Number for pesticide use reporting; (2) The crop and/or its product is sold, including but not limited to: (a) an industry cooperative, (b) harvest crew/company, or (c) a direct marketing location, such as Certified Farmers Markets; or (3) the federal Department of Treasury Internal Revenue Service form 1040 Schedule F Profit or Loss from Farming is used to file federal taxes.

5) Discharges from commercial vineyards regulated by this Order include discharges to surface water and groundwater, through mechanisms such as agricultural drainage structures, irrigation return flows and tailwater, percolation, tile drain water, stormwater runoff flowing from agricultural lands, and runoff resulting from frost control or operational spills. These discharges can contain wastes that could affect the quality of waters of the state and impair beneficial uses. This Order also regulates the removal or degradation of riparian vegetation resulting in the loss or degradation of instream beneficial uses.

6) This Order does not limit Regional Water Board authority to inspect, and/or evaluate regulatory status, water quality impacts, or regulatory requirements of commercial vineyard activities. If the Regional Water Board determines that due to site-specific conditions a vineyard is not eligible for coverage under this General Order, or enrollment will not be protective of water quality, the Regional Water Board may issue site-specific WDRs.

7) This Order applies to landowners and operators of commercial vineyards on or from which there could be dischargers of waste or activities that could affect the quality of any surface water or groundwater or result in the impairment of beneficial uses. Either the owner or operator may enroll a commercial vineyard parcel under this Order. The owners or operators that enroll the respective commercial vineyard parcels are considered Dischargers under this Order and are responsible for complying with the conditions of this Order.

8) The Discharger is required to provide written notice to the non-Discharger owner or operator (if applicable) that the parcel has been enrolled under the Order.

9) The Regional Water Board will hold both landowners and s of commercial vineyards liable for noncompliance with this Order, regardless of whether the landowner or the operator is the party to enroll under this Order. Enforcement action by the Board for non-compliance related to an enrolled commercial vineyard parcel may be taken against both the owner and operator.

10) This Order does not preclude the need for additional permits that may be required by other governmental agencies, nor does it supersede any requirements, ordinances, or regulations of any other regulatory agency.

11) This Order does not authorize violation of any federal, state, or local law or regulation.

12) This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §§2050 to 2097) or the Federal Endangered Species Act (16 US Code §§1531 to 1544). If a "take" will result from any action authorized under this Order, the Discharger shall obtain authorization for an incidental take prior to construction or operation of the project. The Discharger shall be responsible for meeting all requirements of the applicable Endangered Species Act.

13) This Order does not supersede the Regional Water Board Basin Plan and policies, including prohibitions (e.g., pesticides) and implementation plans (e.g., TMDLs), or the State Water Board's plans and policies.

14) Dischargers are required to comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges to storm drain systems or other infrastructure under their jurisdiction.

15) Other potentially relevant permits (not authorized through enrolling under this Order) for commercial vineyards may include, but are not limited to the following:

    a) State Water Board Construction General Permit for Discharges of Storm Water Associated with Construction Activities (Construction General Permit, 2009-0009-DWQ) for construction activities associated with new land development.

    b) The National Pollutant Discharge Elimination System (NPDES) permit requirements and Clean Water Act section 402.

    c) Order No. R1-2004-0030, General WDRs for Discharges Related to Timber Activities on Non-Federal Lands in the North Coast Region.

    d) Order No. R1-2016-0002, General WDRs for Discharges of Wine, Beverage, and Food Processor Waste to Land.

    e) State Water Board Order WQ 2021-0002-DWQ General WDRs for Winery Process Water

    f) State Water Board Order No. WQ 2020-0012-DWQ, General WDRs for Commercial Composting Operations.

    g) Clean Water Act section 401 water quality certification or alternative WDRs for dredge and fill activities occurring within surface waters.

    h) A valid water right from the State Water Board Division of Water Rights for a surface water diversion.

    i) State Water Board Order No. WQ-2016-0068-DDW Water Reclamation

Requirements for Recycled Water.

16) The Regional Water Board acknowledges that it will take time to: (1) develop meaningful and effective Third-Party programs that facilitate compliance with this Order; (2) develop online reporting tools and templates, and (3) conduct outreach and education to help Dischargers and service providers become familiar with Order requirements. The Order considers this by deferring the enrollment deadline to July 1, 2025.

C. Monitoring and Reporting

1) This Order requires the implementation of a monitoring and reporting program (MRP) pursuant to Water Code section 13267 that is intended to determine the effects of waste discharges on water quality, to verify the adequacy and effectiveness of the Order's conditions, to evaluate Discharger compliance with the terms and conditions of the Order, to initiate adaptive management as needed, and to support an assessment of the long-term effectiveness of the Order.

2) A Discharger covered under this Order must comply with Attachment A: Monitoring and Reporting Program for Dischargers Enrolled Individually, or Attachment B: Monitoring and Reporting Program for Dischargers Enrolled in a Third-Party Group if they choose to enroll through a Third-Party Group[2].

3) Attachment A and Attachment B are part of this Order and may be subject to future revisions by the Executive Officer or Regional Water Board.

4) For Dischargers enrolled individually, water quality monitoring under this Order assesses the individual's compliance with this Order's requirements (see Attachment A for complete MRP requirements).

5) For Dischargers enrolled in a Third-Party Group (see Attachment B for complete MRP requirements), the surface water quality monitoring and groundwater quality trend monitoring under this Order are mostly representative and regional. The benefits of representative and regional monitoring include the ability to determine whether practices, at the watershed level, are protective of water quality. However, there are limitations to representative and regional monitoring effectiveness in determining possible sources of water quality standard[3] exceedances, the effectiveness of management practices, and individual vineyard compliance with

[2] Commercial vineyards located outside the Big-Navarro-Garcia, Gualala-Salmon, and Russian River Hydrologic Unit Code (HUC) HUC-8 watersheds (North Coast viticultural region) are not required to conduct monitoring and reporting.

[3] USEPA defines water quality standards as consisting of three elements: designated beneficial uses for each waterbody, criteria to protect those uses, and consideration of antidegradation requirements.

Order requirements. This Order considers these limitations by requiring agricultural drainage structure sampling that drives individual adaptive management for Dischargers enrolled in a Third-Party Group.

6) Where required monitoring and evaluation does not provide sufficient information for the Regional Water Board to determine potential sources of water quality standard exceedances or identify whether management practices are effective, this Order requires Dischargers to implement adaptive management and develop and implement Water Quality Management Plans to establish individual compliance with the Order as described in Section II.K.5 of this Order. It may also be necessary for the Board to conduct investigations by obtaining information directly from Dischargers to assess individual compliance.

D. Surface Water Quality Monitoring

1. Sediment

1) This Order requires monitoring turbidity (as a proxy for suspended sediment) through edge-of-field monitoring for Dischargers enrolled individually.

2) This Order requires Third-Party Group enrollees to perform representative monitoring for turbidity (as a proxy for suspended sediment concentrations) as a method of tracking progress towards sediment conditions supportive of beneficial uses. Target conditions are decreasing trends in suspended sediment load. This Order requires Third-Party Group enrollees to perform representative monitoring of streambed conditions (fine sediment and surface roughness) as a method of tracking progress towards sediment conditions which are supportive of beneficial uses. Target conditions are decreasing trends in fine sediment and increasing trends in surface roughness.

3) This Order requires monitoring for sediment through (1) agricultural drainage structure turbidity (as a proxy for suspected sediment) monitoring, (2) representative tributary turbidity monitoring and (3) representative tributary streambed monitoring for Dischargers enrolled through a Third-Party Group.

4) The Russian (HUC-8) and Navarro (HUC-10) River watersheds contain approximately 95 percent of land planted to commercial vineyards in the North Coast Region, are impaired from excess sedimentation/siltation, and are within winter steelhead and coho salmon distribution ranges. This Order includes status and trend monitoring within these watersheds (tributaries) over an extended period following implementation of the Order.

5) The migration, spawning, reproduction, and early development of cold-water fish, such as Coho and Chinook salmon and California steelhead trout, are impacted in the North Coast Region due to excessive sediment, elevated stream temperatures, and other conditions. Beneficial uses of waterbodies within the North Coast

viticultural region include cold, freshwater habitat, migration of aquatic specifics, wildlife habitat, and spawning, reproduction, and early development of fish. Figure 2 shows the winter steelhead and coho salmon distribution ranges in the North Coast viticultural region.

2. Pesticides and Nutrients

1) The California Department of Pesticide Regulation (CDPR) maintains a Surface Water Database (SURF) containing data from a wide variety of environmental monitoring studies designed to test for the presence or absence of pesticides in California surface waters. Between 2011-2021, SURF identifies 20 pesticides applied on winegrapes in the North Coast viticulture region according to the 2011-2021 Pesticide Use Reports (PUR) that were detected in surface water samples. Figure 3 shows detections of pesticides within the North Coast viticultural area during that time frame. The detected pesticides can be found in Table A.3 of Attachment A. This Order requires monitoring of pesticides through either edge-of-field sampling for individual dischargers as described in Attachment A and representative monitoring for Dischargers enrolled through a Third-Party Group as described in Attachment B.

2) Potential sources of applied nitrogen on commercial vineyards include organic and inorganic fertilizers, slow-release products, compost, compost teas, manure, extracts, nitrogen present in the soil, nitrate in irrigation water, and nitrate in recycled water. Nitrogen efficiency management practices are a mechanism to control the discharge of nitrogen to surface and groundwater. This Order monitors the potential for discharge of nitrogen to surface water primarily through Irrigation and Nitrogen Management Plans (INMPs) which require Dischargers to (1) report nitrogen application and crop removal rates, (2) sample soil and irrigation water for nitrate concentration, (3) and identify management practices to minimize or prevent discharge of excess nitrogen to surface or groundwater. This Order requires certification of the INMP and adaptive management for Dischargers who are nitrogen application statistical outliers. The Executive Officer may update the MRP to include a surface water monitoring program for nitrate should a program of implementation be adopted into the North Coast Basin Plan to evaluate nitrate in surface water or to develop a monitoring program for a nutrient TMDL.

3) Phosphorus is a naturally occurring element in North Coast soils and is used as a fertilizer in North Coast vineyards. However, because phosphates sorb to positively charged surfaces in soil, controlling and monitoring for the discharge of phosphorus in this Order is achieved through sediment and erosion management practices and monitoring.

E. Groundwater Quality Monitoring

1. Nitrates

1) Elevated levels of nitrates in drinking water can have significant negative health effects on sensitive individuals. The nitrate water quality objective for groundwater is the maximum contaminant level (MCL) of 10 mg/L (milligrams per liter) for nitrate plus nitrite as nitrogen (or 45 mg/L of nitrate as nitrate) established by the California Department of Public Health (Cal. Code Regs. tit. 22, § 64431). The MCL was set to protect the most at-risk groups – infants under six months old and pregnant women. Sources of nitrate in groundwater include leaching of excess fertilizer, confined animal feeding operations, septic systems, and wastewater discharge to land (e.g., domestic, commercial, and industrial). Pathways of nitrate to groundwater include unprotected well heads, improperly abandoned wells, and lack of backflow prevention on wells.

2) This Order requires monitoring of nitrate in groundwater through: (1) individual and regional groundwater trend monitoring to evaluate broad impacts of agricultural practices on groundwater and (2) drinking water well sampling to notify well users of exceedances of the nitrate MCL.

2. Pesticides

1) CDPR maintains a Groundwater Protection List in sections 13144, 13145 and 13149 of the California Food and Agricultural Code. Pesticides labeled for agricultural, outdoor institutional or outdoor industrial use that are designated as having the potential to pollute groundwater and have been detected in groundwater or soil pursuant to section 13149 of the Food and Agricultural Code are on the CDPR 6800(a) list.

2) The CDPR Human Health Assessment Branch (HHA) has developed Human Health Reference Levels (HHRLs) for pesticides on the 6800(a) list. Residues measured in groundwater exceeding these reference levels indicate a health concern and should be sent to HHA for further evaluation.

3) The CDPR Groundwater Protection Program (GWPP) obtains groundwater monitoring data for pesticides and their degradates through its own sampling program and from sampling conducted by other public agencies. The GWPP has reported detections of one 6800(a) listed pesticide (Simazine) in groundwater within the North Coast viticultural region between 2012-2021 (see Figure 4). Simazine use has also been reported in CDPR PUR data for commercial vineyards in Mendocino and Sonoma County during those years. CDPR PUR data report three additional 6800(a) listed pesticides (Norflurazon, Diuron, and Bromacil) as having limited use in commercial Mendocino and Sonoma County vineyards between 2014-2018.

4) This Order addresses the human health concerns from 6800(a) listed pesticides in drinking water through sampling and noticing drinking water well users of 6800(a) listed pesticide exceedances of the CDPR HHRL, the Primary MCL, or a Public Health Goal[4] in the Drinking Water Well Sampling requirements as described in Attachment A and Attachment B.

F. Third-Party Programs

1) The Regional Water Board encourages Dischargers to participate in third-party groups or programs (e.g., certification program, watershed group, water quality coalition, monitoring coalition, or other third-party effort) to facilitate and document compliance with this Order. Third-Party Groups can be used to implement outreach and education, monitoring and reporting, management practice and/or water quality improvement projects. Regionally scaled third-party programs addressing multiple Order requirements are preferred to provide economies of scale to reduce Discharger costs, maximize effectiveness, and streamline Water Board oversight; however, watershed- or basin-scale third-party programs of limited scope may be appropriate under certain circumstances and should be coordinated to the extent practicable for consistency and effectiveness.

2) Third-party programs are discussed in Attachment C: Third-Party Group Requirements. The Regional Water Board will provide more detailed third-party expectation documents as part of the Third-Party Group Request for Proposals (RFP). The intention of the RFP is to inform and solicit proposals for Executive Officer consideration.

3) This Order requires Dischargers to provide the Third-Party Group with contact information of the person(s) authorized to provide access to the enrolled property for inspections. This requirement provides a procedure to enable Board staff to contact grower representatives so that it may more efficiently monitor compliance with the provisions of this Order.

G. Regulatory Framework

The California Regional Water Quality Control Board, North Coast Region finds:

1) Order No. R1-2024-00xx, General Waste Discharge Requirements for Discharges from Commercial Vineyards, requires Dischargers to comply with applicable state plans and policies and applicable state and federal water quality standards and to prevent nuisance. Water quality standards are set forth in state and federal plans, policies, and regulations. The Regional Water Board Basin Plan contains specific

[4] California Office of Environmental Health Hazard Assessment (OEHHA) establishes Public Health Goals which is the level of a chemical contaminant in drinking water that does not pose a significant risk to health (https://oehha.ca.gov/water/public-health-goals-phgs).

water quality objectives, beneficial uses, and implementation plans that are applicable to discharges of waste and/or waterbodies that receive discharges of waste from commercial vineyards.

2) The State Water Board has adopted plans and policies that may be applicable to discharges of waste and/or surface waterbodies or groundwater that receive discharges of waste from commercial vineyards.

3) The USEPA has adopted the National Toxics Rule and the California Toxics Rule, which constitute water quality criteria that apply to waters of the United States.

4) The specific waste constituents required to be monitored are set forth in Attachment A and Attachment B.

1. Water Code Considerations

1) The California Water Code (Water Code) grants authority to the State Water Board with respect to state drinking water, water rights and water quality regulations and policy, and establishes nine Regional Water Boards with authority to regulate discharges of waste that could affect the quality of waters of the state and to adopt water quality regulations and policy.

2) Water Code section 13260(a) requires that any person, citizen, or domiciliary discharging waste or proposing to discharge waste, other than to community sewer system, that could affect the quality of the waters of the state, file a ROWD to obtain coverage under WDRs or a waiver of WDRs. Waste, person, citizen, and domiciliary are defined in Water Code section 13050.

3) Water Code section 13263(a) requires Regional Water Boards to consider the provisions of Water Code section 13241 when prescribing WDRs. Water Code section 13241 requires Regional Water Boards to consider several factors, including “economic considerations” when establishing water quality objectives to ensure the reasonable protection of beneficial uses and prevent nuisance. The Cost Considerations section below discusses estimated costs of compliance with the Order.

4) Pursuant to Water Code section 13263(g), no discharge of waste into the waters of the state, whether or not the discharge is made pursuant to WDRs, shall create a vested right to continue to discharge. All discharges of waste into waters of the state are privileges, not rights.

5) Pursuant to Water Code section 13263(i), the Regional Water Board may prescribe general WDRs for a category of discharges if the discharges are produced by the same or similar operations, involve the same or similar types of waste, require the same or similar treatment standards, and are more appropriately regulated under general WDRs than individual WDRs. Discharges from commercial vineyards have

certain common characteristics, such as similar land disturbing activities, use of nutrients and pesticides, agricultural practices, agricultural drainage structures, and agricultural road networks that require similar best management practices to control, minimize, and/or prevent discharges of waste. These types of discharges are more appropriately regulated under general WDRs.

6) Water Code section 13267 states in relevant part:

(b)(1) In conducting an investigation…, the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region… shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports.

(b)(2) when requested by the person furnishing a report, the portions of a report that might disclose trade secrets or secret processes may not be made available for inspection by the public but shall be made available to governmental agencies…However, these portions of a report shall be available for use by the state or any state agency in judicial review or enforcement proceedings involving the person furnishing the report.

(c) In conducting an investigation…, the regional board may inspect the facilities of any person to ascertain whether…waste discharge requirements are being complied with. The inspection shall be made with the consent of the owner or possessor of the facilities or, if consent is withheld, with a warrant issued pursuant to…Title 13 (commencing with §1822.50) of Part 3 of the Code of Civil Procedure.

7) Water Code section 13268 provides that any person who fails to furnish a technical or monitoring program or who falsifies any information provided in a technical or monitoring report, pursuant to Water Code section 13267, may be subject to administrative civil liability in an amount not to exceed $1,000 per day of violation. If the matter is referred to the Attorney General for judicial enforcement, a higher liability of $5,000 per day of violation may be imposed. Higher penalties may also be imposed for any person that knowingly commits any violation in section 13268 of the Water Code.

8) Water Code section 13350 provides that any person who discharges waste in violation of WDRs may be (1) subject to administrative civil liability imposed by the Regional Water Board or State Water Board in an amount of up to $5,000 per day of violation, or up to $10 per gallon of waste discharged; or (2) subject to civil liability imposed by a court in an amount of up to $15,000 per day of violation, or up to $20 per gallon of waste discharged. The actual calculation and determination of

administrative civil penalties must be consistent with the State Water Board Water Quality Enforcement Policy (Enforcement Policy) and the Porter-Cologne Act.

2. Title 27 Exemption

1) Discharges from commercial vineyards eligible for coverage under this Order are exempt from the requirements of Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste in California Code of Regulations, title 27, division 2, subdivision 1, section 20005, et seq.

2) The commercial vineyard activities are exempt from the requirements of title 27 so long as the activity meets and continues to meet all preconditions listed below. (Cal. Code Regs., tit. 27, §20090):

    a) Wastewater – Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leach fields if all of the following conditions are met:

        i) The applicable Regional Water Board has issued WDRs, reclamation requirements, or waived such issuance.

        ii) The discharge complies with the applicable water quality control plan.

        iii) The wastewater does not need to be managed according to California code of Regulations, title 22, division 4.5, chapter 11, as a hazardous waste. (Cal. Code Regs., tit. 27, §20090(b).)

    b) Soil Amendments – Use of nonhazardous decomposable waste as a soil amendment pursuant to applicable best practicable treatment or controls (BPTC) measures, provided that Regional Water Boards may issue waste discharge or reclamation requirements for such use. (Cal. Code Regs., tit. 27, §20090(f).)

3. Nonpoint Source Policy

1) The State Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program adopted on May 20, 2004 (NPS Policy) requires regulation of nonpoint source pollution in California through WDRs, WDR waiver programs, or discharge prohibitions (Water Code §13146; Gov. Code §11353).

2) The federal Clean Water Act (CWA) requires states to develop a program to protect the quality of water resources from the adverse effects of nonpoint source (NPS) water pollution. The NPS Policy is the State Water Board framework for addressing NPS pollution and requires each of the nine Regional Water Boards to regulate NPS pollution, including agricultural discharges. The NPS Policy states that Regional Water Board implementation programs for NPS pollution control must

include five key elements, as follows:

Key Element 1: An NPS control implementation program's ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.

Key Element 2: An NPS control implementation program shall include a description of the management practices and other program elements that are expected to be implemented to ensure attainment of the implementation program's stated purpose(s), the process to be used to select or develop management practices, and the process to be used to ensure and verify proper management practices implementation. The Regional Water Board must be able to determine that there is a high likelihood that the program will attain water quality requirements. This will include consideration of the management practices to be used and the process for ensuring their proper implementation.

Key Element 3: Where the Regional Water Board determines it is necessary to allow time to achieve water quality requirements the NPS control implementation program shall include a specific time schedule, and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.

Key Element 4: An NPS control implementation program shall include sufficient feedback mechanisms so that the Regional Water Board, dischargers, and the public can determine whether the program is achieving its stated purpose(s) or whether additional or different management practices or other actions are required.

Key Element 5: Each Regional Water Board shall make clear, in advance, the potential consequences for failure to achieve an NPS control implementation program's stated purpose.

3) This Order constitutes an NPS Implementation Program for discharges regulated by this Order. This Order is consistent with all key elements of the NPS Policy as described below:

   a) The ultimate purpose of this Order is explicitly stated in Section I: Background and Purpose. This Order includes requirements to meet applicable water quality objectives and State Water Board Resolution 68-16 (Antidegradation Policy). Further discussion of this Order's implementation of antidegradation requirements is given below under Section I.E.3. This Order is consistent with Key Element 1.

   b) The Regional Board is prevented by Water Code section 13360 from prescribing specific management practices to be implemented. However, it may set forth performance standards and require dischargers to report on

what practices they have or will implement to meet those standards. Examples of the types of practices that commercial vineyards may implement to meet program goals and objectives have been described and evaluated in the draft EIR. This Order requires each individual operation to develop a Farm Evaluation that will describe their management practices in place to protect surface water and groundwater quality. This Order also requires Dischargers to develop water quality management plans (WQMP) in response to exceedances of the turbidity benchmark, or applicable water quality objectives, or where management practices are not properly implemented. The requirements of this Order are consistent with Key Element 2.

c) This Order requires the development of WQMPs in response to water quality exceedances or where management practices are not implemented properly or are insufficient. WQMPs include a time schedule for implementing required management practices and meeting water quality objectives. This Order also requires road standards that must be met within 10 years of adoption of this Order. The time schedule requirements in this Order are consistent with Key Element 3.

d) To provide feedback on whether program goals are being achieved, this Order requires surface and groundwater quality monitoring, tracking of management practices, and evaluation of effectiveness of implemented practices. This feedback will allow iterative implementation of practices to ensure that program goals are achieved. The feedback mechanisms required by this Order are consistent with Key Element 4.

e) This Order establishes the following consequences where requirements are not met: (1)The Third-Party Group or Dischargers will be required, in an iterative process, to conduct additional monitoring and/or implement management practices where water quality objectives are not being met; (2) appropriate Regional Water Board enforcement action where the iterative management practices process is unsuccessful, program requirements are not met, or time schedules are not met; (3) require Dischargers, where the Third-Party Group fails to meet the requirements of this Order, to enroll in the Order individually. This Order describes the consequences for failure to meet requirements and is consistent with Key Element 5.

4. Human Right to Water

1) On February 16, 2016, and April 23, 2019, the State Water Board and the Regional Water Board adopted resolutions (Resolution No. 2016-0010 and R1-2019-0024, respectively) identifying the human right to water as a top priority and core value of the State Water Board and Regional Water Quality Control Boards (collectively the Water Boards) in association with Water Code section 106.3. The resolutions stated the Water Boards will work “to preserve, enhance, and restore the quality of

California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations." This Order promotes that policy by requiring the Dischargers to meet water quality objectives, as applicable, designed to protect human health and ensure that water is safe for domestic uses.

5. Antidegradation Policy

1) State Water Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California (Antidegradation Policy), requires that whenever the existing quality of water is better than the quality established in plans and policies as of the date on which such polices became effective,(e.g. water quality objectives established in such plans and policies) such existing water quality shall be maintained unless otherwise provided by the provisions of the state Antidegradation Policy. The state Antidegradation Policy allows a discharge that may degrade high quality water if the change in water quality is: (1) consistent with the maximum benefit to the people of the State, (2) will not unreasonably affect present and anticipated beneficial use of such water, and (3) will not result in water quality less than that prescribed in water quality control policies and plans. Further, any activities that result in discharges to such high-quality waters are required to use: the BPTCs necessary to avoid pollution or nuisance and maintain the highest water quality consistent with the maximum benefit to the people of the State.

2) This Order is consistent with the Antidegradation Policy by requiring Farm Evaluations, Irrigation and Nitrogen Management Plans, management practice tracking, and surface and groundwater water quality monitoring and reporting that are designed to ensure that degradation is prevented or minimized and that management practices are protective of water quality. These requirements are aimed to ensure that all commercial vineyards are implementing management practices that prevent or minimize degradation. The effectiveness of such practices is evaluated through representative and individual water quality monitoring. The Order relies on implementation of practices and treatment technologies that constitute BPTC/best efforts, based to the extent possible on existing data.

3) The Regional Water Board finds that any limited degradation that may occur in these high-quality water bodies even following implementation of all applicable management practices designed to control discharges is to the maximum benefit of the people of the State. The Board has considered the social and economic significance of the commercial vineyard industry in the North Coast Region and the important role that North Coast commercial vineyards provide in providing winegrapes and providing economic value and support to local communities. The Board finds that coupled with the environmental and water quality benefits that will result from implementation of the conditions in this Order, maintaining the North Coast commercial vineyard industry is consistent with the maximum benefit of the people of the state to prevent a loss of jobs and adverse impacts to local

communities. The Board has additionally considered the impacts to drinking water supplies from potential discharges to groundwater from commercial vineyard operations. However, even where there is limited degradation of high-quality groundwater, this Order sets the protection of water quality objectives as the floor to any degradation ensuring that drinking water beneficial uses are protected.

6. East San Joaquin Precedential Order

1) The State Water Board Irrigated Lands Regulatory Program sets forth precedential requirements for all Regional Irrigated Lands in DWQ 2018-0002 In the Matter of Review of Waste Discharge Requirements General Order No. R5-2012-0116 for Growers Within the Eastern San Joaquin River Watershed (ESJ Order).

2) Commercial vineyards are irrigated agricultural lands and therefore, Dischargers regulated under this Order are part of the State and Regional Water Board Irrigated Lands Regulatory Program and subject to the ESJ Order requirements that the State Water Board designated as precedential. This Order is consistent with the precedential ESJ Order requirements by including conditions related to grower outreach events, farm evaluations, sediment and erosion controls, irrigation and nitrogen management, record keeping, and groundwater quality monitoring for Dischargers and approved Third-Party groups. Additionally, this Order requires monitoring and reporting to verify and provide feedback on the degree and effectiveness of implementation of these precedential requirements.

3) Specifically, this Order implements ESJ Order requirements through: (1) INMPs; (2) Drinking Water Supply Well Monitoring; (3) Groundwater Quality Trend Monitoring; (4) Outreach and Education; and (5) Groundwater Protection Plans that include Groundwater Protection Targets as described in Attachment A and Attachment B.

a. High and Low Groundwater Vulnerability Areas

1) Precedential requirements set forth in the ESJ Order establish “high and low vulnerability” groundwater basins for threat from nitrates. The ESJ Order requires that development of Groundwater Protection Formulas and certification of irrigation and nutrient management plans be prioritized in “high vulnerability” groundwater basins which are defined in the ESJ Order as areas “where known groundwater quality impacts exist for which irrigated agricultural operations are a potential contributor or where conditions make groundwater more vulnerable to impacts from irrigated agricultural activities.”

2) The Regional Water Board adopted the Groundwater Basin Evaluation and

Prioritization Resolution No. R1-2021-0006[5] which identifies priority groundwater basins having a relatively high threat from salts and nutrients and would benefit from salt and nutrient management planning. The Regional Water Board is required to update these priority basins every five years per the State Water Board Resolution No. 2009-0011, Recycled Water Policy.

3) This Order establishes Priority 1 and 2 groundwater basins within the North Coast Region as 'high vulnerability' and all other groundwater basins within the North Coast Region as 'low vulnerability.'

8. Sources of Drinking Water Policy

1) The Policy (SWRCB Resolution No. 88-63) established the principle that all surface and ground waters within the State are considered suitable or potentially suitable for the municipal and domestic supply ("MUN") beneficial use with certain exceptions. Exceptions applicable to groundwater include: where there is contamination (unrelated to the pollution incident) that cannot reasonably be treated for domestic use; where groundwater contains total dissolved solids ("TDS") exceeding 3,000 milligrams per liter and is not reasonably expected to supply a public water system; and where there is insufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

2) The Policy acknowledges Regional Water Boards have discretion to separately evaluate whether bodies of water are presently or potentially suitable for MUN designation. Regional Water Boards shall also assure that the beneficial uses of municipal and domestic supply are designated for protection wherever those uses are presently being attained, and assure that any changes in beneficial use designations for waters of the State are consistent with all applicable regulations adopted by the Environmental Protection Agency

7. Regional Water Board Plans and Policies

a. Basin Plan

1) The Basin Plan is the Regional Water Board's water quality control planning document. It designates beneficial uses and water quality objectives (WQOs) for waters of the state, including surface waters and groundwater. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Board, the Office of Administrative Law, and the USEPA, as necessary. The Region's TMDLs and associated implementation plans are part of the Basin Plan.

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[5] Ground Water Prioritization Resolution R1-2021-0006 (https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2021/21_0006_Groundwater_Basin_Prioritization_Resolution.pdf)

The latest version of the Basin Plan can be found on the Regional Water Board's website (https://www.waterboards.ca.gov/northcoast/water_issues/Third-Partys/basin_plan/).

i. Beneficial Uses

1) Pursuant to the Basin Plan, Board plans and policies (including State Water Board Resolution No. 88-63 Sources of Drinking Water Policy), and consistent with the Clean Water Act, the existing and potential beneficial uses of waters in the North Coast Region include: agricultural supply; aquaculture; commercial and sport fishing; cold freshwater habitat; estuarine habitat; flood peak attenuation or flood water storage; freshwater replenishment; groundwater recharge; industrial process supply; industrial service supply; inland saline water habitat; marine habitat, migration of aquatic organisms; municipal and domestic supply; Native American culture; navigation; non-contact water recreation; preservation areas of special biological significance; preservation of areas of special rare, threatened, or endangered species; spawning, reproduction, and/or early development; subsistence fishing; warm freshwater habitat; water quality enhancement; wetland habitat; water contact recreation; and wildlife habitat.

b. Total Maximum Daily Loads

1) The federal Clean Water Act section 303(d) requires the states to determine waterbody compliance with water quality objectives and to develop a list of impaired waterbodies. Federal regulations require that a TMDL be developed for 303(d)-listed waterbodies for each pollutant of concern. The USEPA has established TMDLs for 25 impaired stream segments in the North Coast Region. The Regional Water Board has adopted five additional TMDLs for impaired stream segments in the North Coast Region with accompanying implementation plans.

2) The majority of the Regional Water Board TMDLs developed to date have a common approach to meeting load allocations for sediment and temperature. The TMDLs typically list cold freshwater habitat[6] as an important beneficial use. While specific load allocations and targets may vary slightly, all address the need to reduce and prevent excess sediment inputs and decrease water temperature by protecting and restoring natural shade or conditions equivalent to natural shade.

3) Implementation of this Order will address sediment and temperature impairments by requiring: (1) the application of management practices to minimize or prevent excess sediment and other waste discharges; (2) the protection and maintenance of riparian conditions and shade; (3) inventories, prioritization and remediation of

[6] Cold Freshwater Habitat (COLD): Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.

sediment discharge sources; (4) implementation and evaluation of management practice effectiveness and adaptive management in response to deficiencies, and (5) ongoing education and outreach.

c. Sediment TMDL Policy

1) The Regional Water Board adopted the TMDL Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region, (Sediment TMDL Policy) on November 29, 2004. The Sediment TMDL Policy directs the Executive Officer to use all available authority including existing regulatory standards and permitting and enforcement tools, to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste.

2) Approximately 61-percent of the North Coast Region drains to sediment impaired rivers and streams (2006 Clean Water Act §303(d) list). Sediment TMDLs have been established by the USEPA for the Albion River, Big River, Middle Fork Eel River, North Fork Eel River, South Fork Eel River, Garcia River, Gualala River, Mattole River, Navarro River, Noyo River, Redwood Creek, Ten Mile River, Trinity River, South Fork Trinity River, and Van Duzen River.

3) Compliance with this Order satisfies North Coast Region TMDLs for controllable sediment discharge sources from vineyards including appurtenant agricultural roads and watercourse crossings through requiring the following: (1) ground cover on Farm Areas[7], (2) agricultural road drainage designed and managed to reduce hydrologic connectivity[8]; (3) watercourse crossings which reduce diversion potential and crossing failure; (4) protecting slopes prone to erosion; (5) winterization of seasonal agricultural roads and avenues; and (6) prohibiting the construction of new commercial vineyards and appurtenant agricultural roads on areas of slope instability.

4) This Order is consistent with the Basin Plan for the North Coast Region and the Sediment TMDL Implementation Policy by requiring all Dischargers to inventory sediment discharge sites on the commercial vineyard, implement sediment and erosion control management practices to prioritize preventing erosion, monitor management practice effectiveness, and implement adaptive management as a response to monitoring.

d. Temperature Policy

1) The Basin Plan includes the Policy for the Implementation of the Water Quality

[7] See definition of “Farm Area” in Appendix I: Acronyms and Definitions.

[8] Farm areas with a continuous surface flow path to a natural stream channel during a storm runoff event (also referred to as hydrologic connectivity). Connectivity usually occurs through agricultural drainage structures, drainage inlets, road ditches, gullies, and channels.

Objectives for Temperature in the North Coast Region (Temperature Implementation Policy), which specifies that activities resulting in water temperature increases shall be addressed on a case-by-case basis to reduce impairments and prevent further impairment. The Temperature Policy directs staff to examine and address temperature when developing permits. At a minimum, any program or permit should implement temperature or shade load allocations in areas subject to existing temperature TMDLs, including US EPA-established temperature TMDLs. To attain and maintain the water quality objectives for temperature, the Regional Water Board and its staff implement programs and collaborate with others in such a manner as to prevent, minimize, and mitigate temperature alterations associated with sediment discharges and controllable water quality factors. Controllable water quality factors affecting water temperature include any anthropogenic activity which results in the removal of riparian vegetation, sediment discharges, impoundments and other channel alterations, reduction of instream summer flows, and the reduction of cold water sources. The Temperature Policy is implemented through adoption of WDRs.

2) This Order implements the Temperature Policy through minimum setbacks of the Farm Area and appurtenant agricultural roads to Streamside Areas[9], and establishing requirements and prohibitions within Streamside Areas which: (1) allow the natural establishment and abundance of native riparian vegetation; (2) allow sufficient native riparian vegetation to minimize and control discharge of sediment, nutrients, and pesticides to surface waters; (3) install and/or maintain a minimum width of vegetated buffers to minimize or prevent discharges of sediment, nutrient, pesticides to surface waters; and (4) allow essential functions supporting beneficial uses (e.g., sediment filtering, woody debris recruitment, streambank stabilization, nutrient cycling, pollutant filtering, shading).

3) The Substitute Environmental Document[10] prepared for the Temperature Implementation Policy analyzed its potential environmental impacts. Impacts on Agricultural Resources include the potential conversion of Important Farmland to a non-agricultural use from riparian buffers which are considered compliance measures to preserve and maintain shade. Through adoption of Resolution R1-2014-0006, the Regional Water Board found the potential conversion of Important Farmland to a non-agricultural use and the potential conflict with existing zoning for agriculture use or a Williamson Act contract from implementing riparian buffers as significant and unavoidable.

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[9] Streamside Area. The area between the waterside edge of riparian vegetation canopy (or the nearest edge of the high-water mark if riparian vegetation canopy is not present) and the field side edge of a vegetated buffer.

[10] The Temperature Implementation Policy Substitute Environmental Document (https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/140516_temp/140327_Temp_Policy_Staff_Report_ADOPTED.pdf).

e. Groundwater Protection

1) Resolution No. R1-2022-0040 acknowledges the Regional Water Board is committed to the protection of high-quality groundwater and the restoration of degraded groundwater to support all beneficial uses now and in the future, especially given increasing reliance on groundwater in the North Coast Region. Groundwater supplies in the North Coast Region are currently beneficially used for: (1) drinking water, sanitation, and hygiene consistent with the Human Right to Water described in Regional Water Board Resolution No. R1-2019-0024; (2) agriculture and industry which are major economic drivers in the region, (3) Native American ceremonies and traditions; (4) aquaculture operations; and (5) replenishment of flows to streams (e.g., contribution to instream flows) to maintain beneficial uses of surface water, especially cold freshwater habitat, migration of aquatic specifics, wildlife habitat, and spawning, reproduction, and early development of fish.

8. Assembly Bill 2108

1) This Order regulates commercial cultivation of winegrapes at commercial vineyards, discharges from which may impact disadvantaged and/or tribal communities.

2) The Regional Water Board publicly noticed the Order and provided opportunities for public comment. Public notice was provided to interested persons and public agencies in the North Coast Region. The Regional Water Board conducted outreach in potentially affected disadvantaged and tribal communities[11]. During outreach to tribal communities, three tribes who were not on the AB52 list responded to an invitation for consultation. These three tribes indicated that the project is not within their tribal area and did not wish to pursue consultation. The Regional Water Board included North Bay Jobs with Justice as one of the TAG Members and solicited input during the development of the Order.

3) The Regional Water Board has satisfied the outreach requirements set forth in Water Code section 189.7 by conducting outreach in affected disadvantaged and tribal communities.

4) Pursuant to Water Code section 13149.2, the Regional Water Board reviewed readily available information and information raised to the Board by interested persons concerning anticipated water quality impacts in disadvantaged or tribal communities resulting from adoption of this Order. The Board also considered environmental justice concerns within the Board's authority and raised by

[11] Regional Water Board staff contacted the Native American Heritage Commission to obtain a list of all Native American Tribes within the North Coast Region. Staff sent consultation letters to all 52 Tribes on the list that could be affected by the Order.

interested persons regarding those impacts.

5) The Regional Water Board anticipates that the discharges regulated by this Order will not result in disproportionate impacts that are within the scope of the Board's authority to tribal or disadvantaged communities.

6) Compliance with this Order and all mitigation measures identified in the accompanying EIR are expected to address impacts associated with the management practices in this Order. The mitigation and monitoring required by the Order are not expected to disproportionately impact disadvantaged or tribal communities and mitigation measures are expected to mitigate any impacts to disadvantaged or tribal communities.

9. California Environmental Quality Act

1) For the purposes of adoption of this Order, the Regional Water Board is the lead agency pursuant to the California Environmental Quality Act (CEQA) (Pub. Res. Code §21000 et seq.).

2) On August 8, 2022, the Regional Water Board published an Initial Study for a 45-day public comment period. The Regional Water Board submitted a Notice of Completion and Environmental Document transmittal as well as a Notice of Preparation of a Draft Environmental Impact Report to the State Clearinghouse. The State Clearinghouse distributed the Initial Study to reviewing agencies.

3) In September 2022, Regional Water Board staff held an in-person and a virtual CEQA scoping meeting.

4) During the public comment period for the Initial Study the Regional Water Board received comments from the California Farm Bureau Federation, Sonoma County Farm Bureau, Mendocino County Farm Bureau, The Wine Institute, Jackson Family Wines, and Californians for Alternatives to Toxics.

5) Prior to the adoption of this Order, and after considering public comment, the Regional Water Board certified a final Environmental Impact Report (EIR) that identifies the potential environmental impacts associated with this Order and identifies mitigation measures to reduce the potential environmental impacts.

6) This Order relies on the environmental impact analysis contained in the final EIR to satisfy the requirements of CEQA. The final EIR identified, disclosed, and analyzed the potential environmental impacts of the Order. The potential compliance activities undertaken by the regulated Dischargers in response to this Order fall within the range of compliance activities identified and analyzed in the final EIR. Therefore, all potentially adverse environmental impacts of this Order have been identified, disclosed, and analyzed in the final EIR. If it is determined that a Discharger filing for coverage under this Order could create impacts not identified

in the final EIR, individual WDRs would be prepared for that Discharger and additional CEQA analysis performed, which would likely tier off the final EIR as necessary. (See Cal. Code Regs., tit.14 §15152).

7) The final EIR concludes that implementation of some Order requirements has the potential to cause significant environmental impacts. There are potentially significant impacts due to construction of required management practices in the following categories: Hazards and Hazardous Materials, Hydrology and Water Quality, Geology and Soils, Biological Resources, Cultural Resources, and Tribal Resources.

8) Where potentially significant environmental impacts may occur as a result of Dischargers' compliance activities, this Order requires that Dischargers either avoid the impacts where feasible or implement identified mitigation measures in Attachment B of the final EIR, to reduce the potential impacts to a less than significant level. The Order and MRP require Dischargers to track and monitor the implementation of mitigation measures identified in Attachment D: Mitigation Monitoring and Reporting Summary Table.

9) The final EIR identified potentially significant and unavoidable impacts to Agriculture Resources under this Order through Streamside Management Area setbacks. The Regional Water Board submitted a Statement of Overriding Consideration, a listing of potential environmental impacts, the written findings regarding those impacts consistent with section 15091 of the CEQA Guidelines, and the explanation for each finding are contained in a separate Findings of Fact and Statement of Overriding Considerations document, located in Attachment G of this Order.

a. Assembly Bill 52

1) Assembly Bill 52 (Statutes of 2014, Chapter 532), which went into effect on July 1, 2015, requires that lead agencies under CEQA consult with California Native American tribes that have requested in writing to be notified and that are traditionally and culturally affiliated with the geographic area of a proposed project, prior to the development of a CEQA document. Under the same bill, Public Resources Code section 21084.2 specifies that a project with an effect that may cause a substantial adverse change in the significance of a Tribal Cultural Resource is a project that may have a significant effect on the environment.

2) In June 2022, Regional Water Board staff contacted all Tribes that had requested notification of this project under AB 52, as well as Tribes that had not requested AB 52 notification but could be affected by the Order to solicit consultation if desired.

3) Of the 22 AB 52 Tribes contacted by the Regional Water Board, seven separate tribes responded to the notice. One tribe responded with an update to their contact information. Two tribes indicated that the project is outside their tribal area and did

not want to undergo formal consultation. One tribe asked for information on the consultation process but did not further pursue consultation. Two tribes asked for further information and maps on the project area. After being supplied with additional project information, these tribes decided they did not wish to undergo formal consultation. One tribe responded that the information should be forwarded to another tribe, who responded that the project was outside of their tribal area and they did not wish to pursue consultation.

F. Cost Considerations

1) Water Code section 13241 requires the Regional Water Board to consider certain factors, including economic considerations, in the adoption of water quality objectives. Water Code section 13263 requires the Regional Water Board to take into consideration the provisions of Water Code section 13241 in adopting waste discharge requirements. The following findings discuss the anticipated cost of compliance with the Order. Several assumptions were required to be made for these analyses and there are several inherent limitations and uncertainties, discussed below.

2) There are relevant aspects of this Order where the Regional Water Board previously considered costs and economics associated with implementation. For example, when the Regional Water Board adopted the water quality objectives that serve as the basis for several requirements in this Order, it took economic considerations into account in accordance with Water Code section 13241. The Regional Water Board also previously considered the cost of complying with TMDL load allocations during the adoption of each TMDL.

3) When establishing monitoring and reporting requirements under Water Code section 13267, the Regional Water Board must ensure that the burden, including costs, of the reports bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. Many of the costs considered below are costs associated with the monitoring and reporting requirements of this Order. Dischargers can reduce their costs by joining a Third-Party Program for water quality monitoring and reporting in lieu of individual monitoring and reporting.

4) The monitoring and reporting requirements of this Order allow the Regional Water Board to identify agricultural waste discharges with a higher risk of degrading water quality so that those discharges may be promptly minimized or prevented. Monitoring and reporting of nitrogen application and groundwater monitoring and reporting protect human health by informing the Regional Water Board of discharges that may affect the quality of water designated as municipal and domestic supply and by allowing assessment of the extent to which the water quality objectives are being met in viticultural land use areas.

5) The Regional Water Board needs these reports to document and ensure compliance with this Order. The Regional Water Board finds that the burden of the

requirements of the Order bears a reasonable relationship to the benefits of the requirements.

1. Cost of Compliance with the Order

1) The cost of compliance with the Order for Dischargers in the North Coast Region under existing conditions includes the costs associated with any management practices they may need to implement pursuant to the Order requirements, permit fees, and monitoring and reporting costs. These costs are described further below.

a. Permit Fees

1) The State Water Board sets the fee schedule for agricultural and Irrigated Lands Regulatory Programs throughout the state, as specified in California Code of Regulations, title 23, section 2200.6. All enrolled commercial vineyards must pay the State Water Board fees on an annual basis. Although the State Water Board fees may change from year to year, the fee categories/schedule for the 2022-2023 fiscal year is shown below.

    a) If a Discharger is a member of a group that has been approved by the Regional Water Board or Regional Water Board's Executive Officer to manage fee collection and payment, then the annual fee shall be $1.35 per acre.

    b) If a Discharger is not a member of a group that has been approved by the Regional Water Board or Regional Water Board's Executive Officer to manage fee collection and payment, then the annual fee shall be: $33.51 per acre up to 300 acres plus $16.76 per acre over 300 acres with a minimum fee of $668.

2) In Regions that have implemented Irrigated Lands Orders with Third-Party Programs or Grower Coalitions, the majority of Dischargers have elected to enroll through those entities. Third-Party Groups and Grower Coalitions manage fee collection, conduct representative surface and groundwater monitoring, provide outreach and education, and assist Dischargers with general Order requirements. The Regional Water Board anticipates that the majority of Dischargers under this Order will also elect to enroll through a Third-Party Group.

b. Compliance with Water Quality Protection Requirements

1) All Dischargers must comply with requirements to implement and adapt management practices including sediment and erosion control minimum management practices and Streamside Area setbacks. This Order provides Dischargers flexibility in selecting management practices and requires Dischargers to monitor and report discharges and implemented management practices to minimize or prevent discharges of waste.

2) Dischargers may be required to implement improved or additional management practices, as necessary, and report on the water quality-related outcomes of their management practice implementation. Dischargers must ultimately implement management practices that result in compliance with the Order.

3) Management practices associated with irrigation, nutrient and pesticide use, and sediment and erosion control are already being implemented by many Dischargers. This may be due to requirements imposed by other regulatory agencies (e.g., pesticide tracking and reporting by the Department of Pesticide Regulation and Agricultural Commissioners) and through longstanding voluntary sustainability programs such as Fish Friendly Farming, California Sustainable Winegrowing Alliance, LODI Rules, and Sustainability in Practice (SIP).

4) Implementation of management practices may also have direct net cost benefits to a vineyard (e.g., irrigation and nutrient management can result in less fertilizer costs and reduced water/pumping costs for irrigation; sediment and erosion management minimize or prevent erosion of valuable topsoil).

5) The Natural Resources Conservation Service (NRCS) has developed standard agricultural management practices to address irrigation and nutrient management, pesticide management, and sediment and erosion control management, some of the more common of which are discussed below. Implementation of many of these practices would result in compliance with multiple requirements of the Order. Table 1 provides estimated costs of management practices/scenarios Dischargers may implement to meet the requirements in the Order, as reported by the U.S. Department of Agriculture (USDA), NRCS[12].

    a) Conservation Cover – involves establishing and maintaining a permanent vegetated cover on lands that are either not currently in use/production or lands currently in production that would be taken out of production. The practice does not apply to plantings for forage production or to critical area plantings. This practice can be applied on a portion of the field. The Conservation Cover practice may be implemented to reduce erosion and sedimentation and reduce associated groundwater and surface water quality degradation by nutrients and sediment, as well as other purposes. Costs range between $200 and $300 per acre.

    b) Contour Buffer Strips – involves establishing narrow strips of permanent, herbaceous vegetated cover around hill slopes, which are alternated down the slope with wider cropped strips that are farmed on the contour. This practice may be implemented to reduce erosion and associated water

[12] NRCS costs of management practices/scenarios (https://www.nrcs.usda.gov/sites/default/files/2022-11/California-Scenarios-23-payment-rates.pdf).

quality degradation from the transport of sediment and other water-borne contaminants downslope. Costs range between $300 to $400 per acre.

c) Cover Crop – involves planting grasses, legumes, and/or forbs for seasonal vegetated cover. The practice may be implemented to reduce erosion, maintain or increase soil health and organic matter content, reduce water quality degradation by utilizing excessive soil nutrients, or for other purposes. Costs range between $100 to $300 per acre.

d) Filter Strip – involves establishing a strip or area of herbaceous vegetation that removes contaminants from overland flow. Filter strips can be established anywhere environmentally sensitive areas need to be protected from sediment, or other suspended solids, and dissolved contaminants in runoff. Costs range between $200 to $300 per acre

e) Integrated Pest Management (IPM) program – involves implementing a site-specific combination of pest prevention, pest avoidance, pest monitoring, and pest suppression strategies. An IPM approach seeks to prevent or mitigate offsite pesticide risks to water quality from leaching, solution runoff and adsorbed runoff losses; and prevent or mitigate on-site pesticide risks to pollinators and other beneficial species through direct contact; among other goals. Costs range between $50 and $100 per acre.

f) Micro-Irrigation System – involves implementation of an irrigation system that provides for targeted application of water on or below the soil surface (e.g., as drops, tiny streams, or miniature spray through emitters or applicators placed along a water delivery line. Drip tape, tubing, or micro sprayers may be used). This practice may be implemented to prevent contamination of groundwater and surface water by efficiently and uniformly applying chemicals, and to maintain soil moisture by efficiently and uniformly applying irrigation water. Costs range between $750 to $3,500 per acre.

g) Nutrient Management – involves managing the amount (rate), source, placement (method of application), and timing of plant nutrients and soil amendments. The practice is implemented to minimize agricultural nonpoint source pollution of surface waters and groundwater, among other reasons. Costs associated with this practice include soil testing, analysis, and implementation of the nutrient management plan and recordkeeping. Costs range between $10 and $320 per acre.

h) Riparian Vegetation Buffer – involves establishment of an area of predominantly trees and/or shrubs located adjacent to and up-gradient from waterbodies. The practice may be implemented to reduce excess amounts of sediment, organic material, nutrients and pesticides in surface runoff and reduce excess nutrients and other chemicals in shallow groundwater flow;

reduce pesticide drift entering the waterbody; restore riparian plant communities; create shade to lower or maintain water temperatures to improve habitat for aquatic organisms; or to provide other benefits. Costs vary based on whether riparian forest buffer vegetation is established through seeding, cuttings, bare-root plantings, or small or large containers. For scenarios where land is taken out of production to establish the riparian vegetation buffer, foregone income is considered. Costs range between $3,000 to $5,500 per acre.

i) Sediment Control Basin – involves constructing a basin with an engineered outlet, formed by excavating a dugout, constructing an embankment, or a combination of both. The purpose of the sediment basin is to capture and detain sediment-laden runoff, or other debris for a sufficient length of time to allow it to settle out in the basin. Costs are estimated between $6,000 to $13,000 per basin.

6) These potential costs were considered when the water quality protection requirements were developed for the Order.

Table 1: Estimated Costs of Management Practices/Scenarios for Water Quality Protection

Management Practice[13]	Scenario Size	Unit Cost	Total Cost (low)	Total Cost (High)
Conservation Cover (327)	50 acres	$200-$300/acre	$10,000	$15,000
Contour Buffer Strip (332)	1 acre	$300-$400/acre	$300	$400
Cover Crop (340)	40 acres	$100-$300/acre	$4,000	$12,000
Filter Strip (393)	1 acre	$200-$300/acre	$200	$300
Integrated Pest Management (IPM) program (595)	40 acres	$50-$100/acre	$2,000	$4,000
Micro-Irrigation System (441)	20 acres	$750-$3,500/acre	$15,000	$70,000
Nutrient Management (590)	40 acres	$10-$320/acre	$400	$12,800
Riparian Vegetation Buffer (391)	1.5 acres	$3,000-5,000/acre	$4,500	$7,500
Sediment Control Basin (638)	Basin	Each	$6,000	$13,000

c. Compliance with Agricultural Road Storm-Proofing Requirements

1) Dischargers with appurtenant agricultural roads must comply with requirements to implement road storm-proofing management practices. Existing commercial vineyards are provided with a compliance schedule (10 years from the date of the Order) to complete implementation of road storm-proofing management practices.

2) All storm-proofing management practices on appurtenant agricultural road networks shall properly designed, installed[14], maintained, and promptly repaired.

[13] The listed management practices include the NRCS Conservation Practice Standard Number.

[14] Engineered management practices shall be designed and installed in compliance with plans and specifications prepared by a civil engineer.

Maintenance of management practices shall include periodic inspection of following qualifying storm events. Dischargers must ultimately implement management practices that result in compliance with the Order.

3) Management practices associated with road storm-proofing are already being implemented by many dischargers. This may be due to requirements imposed by other regulatory agencies (e.g., existing County grading and drainage requirements), through long standing voluntary conservation programs, or as a result of individual land management ethics.

4) Implementation of road storm-proofing management practices may also have direct net cost benefits to a vineyard (e.g., reduced road maintenance costs).

5) The NRCS has developed standard management practices for agricultural road sediment, erosion, and drainage control, some of the more common of which are discussed below. Implementation of many of these practices would result in compliance with multiple requirements of the Order. Table 2 shows costs of management practices/scenarios Dischargers may implement to meet the requirements in the Order, as reported by the U.S. Department of Agriculture, NRCS and adjusted by Regional Water Board staff for anticipated scenarios.

    a) Rolling Dips: Shallow, rounded dip in the road where road grade reverses for a short distance and surface runoff is directed in the dip or trough to the outside or inside of the road. Rolling dips are drainage structures used primarily on gravel surfaced, out-sloped roads designed to drain the road surface and constructed to remain effective while allowing passage of motor vehicles at normal or slightly reduced road speed. Costs are estimated between $10 to $20 per lineal foot.

    b) Critical Dips: A dip in the roadbed at a culverted stream crossing, preferably at the down-road hinge line of the fill, that prevents stream diversion. The dip is designed to act as an overflow structure if the main culvert were to plug and ponded water overtopped the fill. Although somewhat like a rolling dip, it must have sufficient capacity (width and depth) to carry flood flows from the stream without itself overtopping and diverting down the road. Costs are estimated at $10 to $20 per lineal foot.

    c) Out-sloping: converting an in-sloped road to an out-sloped road. Out-sloping can also refer to the act of excavating the fill along the outside of the road and placing and grading it against the cut-bank, thereby creating an out-sloped surface where the roadbed once existed. Costs are estimated at $3 to $30 per lineal foot.

6) These potential costs were considered when the appurtenant agricultural road storm-proofing requirements were developed for the Order.

Table 2: Estimated Costs of Management Practices/Scenarios for Road Storm-proofing

Management Practice	Scenario Size	Unit Cost	Total Cost (low)	Total Cost (High)
Rolling Dip	1,000 feet	$10-20/ft	$10,000	$20,000
Critical Dip	1,000 feet	$10-20/ft	$10,000	$20,000
Road Out-sloping	5,000 feet	$3-$30/ft	$15,000	$150,000

d. Monitoring and Reporting

1) All Dischargers are required to conduct surface water and groundwater monitoring and reporting either individually or as part of a Third-Party Group effort. All Dischargers are required to report management practice implementation annually in their Farm Evaluation and report nitrogen applied and removed, in the Irrigation and Nitrogen Management Plan (INMP). Refer to Attachment A and Attachment B for monitoring and reporting requirements and Table 3 and Table 4a and 4b for estimated costs.

Table 3: Estimated Annualized Monitoring and Reporting Costs over Five Years for Dischargers Enrolling Individually (assume 100-acre vineyard)

Task	Cost Estimate	Requirements
Edge-of-Field Surface Water Monitoring	$0 -$1200	Annual monitoring for turbidity and monitoring for pesticides every five years. Turbidity monitoring includes all agricultural drainage structures and a representative number of discharge points. Pesticide monitoring occurs at one representative site.
Drinking Water Supply Well Monitoring (nitrates)	$110 per well	Annual sampling for three years for nitrates and once every five years after that.
Drinking Water Supply Well Monitoring (pesticides)	$200-1050 per well.	Sampling every five years for 6800(a) listed pesticides that the Discharger has applied.

Task	Cost Estimate	Requirements
Groundwater Trend Monitoring	$0 -$400	Monitoring nitrates and field parameters annually and evaluating trends every five years.
INMP Requirements	$135 per farm	Includes annual soil and irrigation water testing and INMP certification[15].
Annual Compliance Form	$250-$500	Includes management practice reporting, nitrogen reporting, outreach attendance, CEQA mitigation measure monitoring, and annual water quality monitoring results.
Trend Monitoring Report	$250-$500	Includes water quality results for five-year monitoring requirements and trend analysis.

Table 4a: Estimated Annualized Monitoring Costs Over Five Years for Dischargers Enrolling in a Third-Party Group (assume 65,000 acres of enrolled vineyards)

Task	Cost Estimate	Monitoring Sites (assumed)	Requirements
Tributary Turbidity Monitoring	$1.62/acre	3 sites	Continuous monitoring for turbidity
Tributary Streambed Monitoring	$0.59/acre	12 sites	Monitor streambed conditions every five years after two initial monitoring efforts in Year 1 and Year 4.
Representative Pesticide Monitoring	$0.01/acre	3 sites	Monitor for 20 pesticides in one representative site within each HUC-12 watershed in the top quartile by vineyard density. See Figure 5 for HUC-12 watersheds by vineyard density within the North Coast Region.

[15] Dischargers may self-certify their INMP if they take the CDFA Irrigation and Nitrogen Management Training for Grower Self-Certification, pass the Irrigation and Nitrogen Management Training and Exam and maintain the certification through continuing education (https://www.cdfa.ca.gov/is/ffldrs/frep/training.html)

Task	Cost Estimate	Monitoring Sites (assumed)	Requirements
Agricultural Drainage Structure Monitoring	$0.51/acre	3000 sites	Turbidity monitoring for 20 percent of agricultural drainage structures on each vineyard annually on a 5-year cycle.
Groundwater Trend Monitoring	$0.06/acre	25	Monitoring for parameters in Attachment B: Section IV annually and evaluating trends every five years.
Drinking Water Supply Well Monitoring	$110-320	per well	Includes annual sampling for three years for nitrates and sampling for 6800(a) listed pesticides that the Discharger has applied every five years.
INMP Requirements	$135	per commercial vineyard	Includes annual soil and irrigation water testing and INMP certification[16].

Table 4b: Estimated Annualized Reporting Costs Over Five Years for Dischargers Enrolling in a Third-Party Group (assume 65,000 acres of enrolled vineyards)

Task	Cost Estimate	Requirements
Annual Compliance Report	$0.38/acre	Includes participant list, management practice reporting, nitrogen reporting and calculations, outreach attendance, and CEQA mitigation measure monitoring.
Annual Water Quality Monitoring Report	$0.38/acre	Results of any water quality monitoring conducted in the previous year.
Trend Monitoring Report	$0.38/acre	All water quality data for past five years reported and analyzed for trends in accordance with

[16] IBID., footnote 7

Task	Cost Estimate	Requirements
		Attachment B: Section VII.E.

e. Technical Reports and Planning Documents

1) As part of Order compliance, Dischargers enrolled individually and Third-Parties Groups on behalf of their enrolled Dischargers are required to submit the following technical reports and planning documents:

    a) Water Quality Monitoring Workplan (Individual): Dischargers enrolled individually shall submit a Water Quality Monitoring Workplan (Workplan) to the Executive Officer which describes how they will implement the water quality monitoring and reporting requirements of this Order as detailed in Attachment A: Section II. Estimated Cost (one-time): $1,000-$2,000.

    b) Water Quality Monitoring Workplan (Third-Party): The Third-Party Group shall submit a Workplan to the Executive Officer for approval, which (1) proposes surface water monitoring locations; (2) proposes a groundwater trend monitoring network; and (3) proposes how the Third-Party will meet all group surface and groundwater monitoring requirements on behalf of their enrolled Dischargers as detailed in Attachment B: Section II. Estimated Cost (one-time): $25,000-$50,000.

    c) Groundwater Protection Plan (Third-Party): The Third-Party Group may choose to submit a Groundwater Protection Plan that identifies a methodology for determining outliers of Nitrogen Applied and Nitrogen Removed (AR), establishes a nitrogen removal coefficient (CN), and proposes groundwater protection formulas and targets. This is a one-time requirement. If the Third-Party Group chooses to not submit a Groundwater Protection Plan, the Regional Water Board will determine these elements. Estimated Cost (one-time): $50,000-$100,000.

    d) Water Quality Management Plan (WQMP) (all applicable Dischargers): Dischargers are required to develop and implement a WQMP when adaptive management and/or existing management practices are insufficient to achieve the goal of minimizing the discharge of pollutants to surface water. WQMPs require certification by a professional. Estimated Cost (per WQMP): $5,000-$10,000.

G. Enforcement for Noncompliance

1) The State Water Board Water Quality Enforcement Policy describes progressive enforcement action for violations of WDRs when appropriate. However, the Enforcement Policy recommends formal enforcement as a first response to more significant violations. Progressive enforcement is an escalating series of actions

that allows for the efficient and effective use of enforcement resources to: (1) assist cooperative Dischargers in achieving compliance; (2) compel compliance for repeat violations and recalcitrant violators; and (3) provide a disincentive for noncompliance. Progressive enforcement actions may begin with informal enforcement actions such as a verbal, written, or electronic communication between the Regional Water Board and a Discharger. The purpose of an informal enforcement action is to quickly bring the violation to the Discharger's attention and to give the Discharger an opportunity to return to compliance as soon as possible. The highest level of informal enforcement is a Notice of Violation.

2) The Enforcement Policy recommends formal enforcement actions for the highest priority violations, chronic violations, and/or threatened violations. Violations of this Order that will be considered a priority include, but are not limited to:

   a) Failure to obtain required regulatory coverage,

   b) Failure to implement minimum management practices,

   c) Failure to implement adaptive management,

   d) Falsifying information or intentionally withholding information required by applicable laws, regulations, or an enforcement order,

   e) Failure to monitor or provide complete and accurate information as required,

   f) Failure to pay annual fees, penalties, or liabilities; or

   g) Failure to submit required reports on time.

3) Any instance of noncompliance with this Order constitutes a violation of the Water Code. Such noncompliance is grounds for enforcement action, and/or termination of coverage for waste discharges under this Order, subjecting the discharger to enforcement under the Water Code for further discharges of waste to surface or groundwater.

H. General Findings

1) Pursuant to Water Code section 13263 subdivision (g), the discharge of waste into waters of the state is a privilege, not a right, and regulatory coverage under this Order does not create a vested right to continue the discharge of waste. Failure to prevent conditions that create or threaten to create pollution or nuisance will be sufficient reason to modify, revoke, or enforce this Order, as well as prohibit further discharge.

2) The fact that it would have been necessary to halt or reduce the discharge in order to maintain compliance with this Order shall not be a defense for violations of the

Order by the Discharger.

3) Water Code section 13260 subdivision (d) requires persons subject to waste discharge requirements to pay any annual fee established by the State Water Board.

4) The electronic Notice of Intent (eNOI) serves as a report of waste discharge (ROWD) for the purposes of this Order.

5) The Executive Officer may make non-substantive changes to this Order to correct typographical errors or to maintain consistency within this Order or between the Order and its Attachments, e.g., to conform changes made during this Order development process that were inadvertently not carried through this entire Order. The Board will provide public notice of the non-substantive changes.

6) The Findings of this Order and the administrative record of the Regional Water Board relevant to the General Waste Discharge Requirements for Commercial Vineyards, were considered in establishing these waste discharge requirements.

II. It Is Hereby Ordered

IT IS HERBY ORDERED that pursuant to Water Code sections 13260, 13263, and 13267, the Discharger, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted hereunder, shall comply with the following:

Dischargers shall comply with all prohibitions, specifications, provisions, and other requirements described below unless otherwise noted.

A. Coverage Requirements

1. Requirements for Coverage

1) These General WDRs apply to discharges or potential discharges of waste from commercial vineyards as described in Findings Sections I.A-H. Owners and/or operators of commercial vineyards are required to seek coverage under this Order except for commercial vineyards subject to the provision in II.A.3 below. Commercial vineyards are those operations that have one or more of the following characteristics:

    a) The landowner or operator has obtained a pesticide use permit from a local County Agricultural Commissioner,

    b) The crop is sold, including but not limited to (1) an industry cooperative, (2) a harvest crew/company, or (3) a direct marketing location, such as certified Farmers Markets; or

    c) The federal Department of Treasury Internal Revenue Service for 1040 Schedule F Profit or Loss from Farming is used to file federal taxes.

2) A Discharger may obtain coverage under this Order either individually or by enrolling in an approved Third-Party Group. By joining a Third-Party Group, the Discharger agrees to be represented by the Third-Party Group. Any Order requirements not fulfilled by the Third-Party Group are the responsibility of the Discharger. Consistent with the Water Board's Policy for Implementation and Enforcement of the NPS Policy, the ineffectiveness of a Third-Party Group through which a Discharger participates in nonpoint source control efforts cannot be used as a justification for lack of individual discharger compliance. Dischargers are ultimately responsible for Order compliance.

3) Owners and/or operators of commercial vineyards not located within one of the following HUC-8 watersheds: Big-Navarro-Garcia, Gualala-Salmon, and Russian shall comply with all general requirements and prohibitions of this Order as described in Sections II.B Prohibitions and II.C.1. Management Practices but are not required to: (1) submit enrollment documents under this Order, (2) conduct water quality monitoring, or (3) submit reports in accordance with the MRP

(Attachment A and B). The Executive Officer may require any owner/operator of a commercial vineyard within the North Coast Region to enroll in this Order and comply with all requirements upon finding that enrollment, monitoring, and reporting requirements are necessary to address threats or impacts to water quality.

2. Obtaining Coverage and Electronic Notice of Intent

1) Enrollment in this Order requires the submittal of the electronic Notice of Intent (eNOI) (see Attachment E) pursuant to Water Code section 13260. Submittal of all other technical reports pursuant to this Order is required pursuant to Water Code section 13267. Failure to submit technical reports or the attachments in accordance with the time frames established by this Order, applicable Monitoring and Reporting Program (MRP) documents, or failure to submit a complete technical report (i.e., of sufficient technical quality to be acceptable to the Executive Officer); may subject the Discharger to enforcement action pursuant to Water Code sections 13261, 13268, or 13350. Dischargers and Third-Parties must submit technical reports in the format specified by the Executive Officer.

2) To obtain coverage under these General WDRs, Dischargers must submit an eNOI form with all required information including but not limited to: Assessor Parcel Numbers (APNs) covered by enrollment; Landowner(s); Operator(s); Contact information; and Third-party Group membership, if applicable.

3) Dischargers shall complete an eNOI and enroll in the Order either individually or through an approved Third-Party Group before **July 1, 2025.**

4) eNOIs shall be updated within one year of a change in property ownership, grower contact information, email contact information, change in the parcels farmed by a Discharger.

5) Dischargers shall complete an eNOI and enroll in the Order either individually or through an approved Third-Party Group before **July 1, 2025**. If the Regional Water Board determines that coverage under this Order is not appropriate for any Discharger, the Executive Officer will inform the Discharger in writing and may request that the Discharger submit an ROWD to obtain an individual permit for the discharge of waste.

6) Coverage under this Order is not transferable to any person except after the completion of a new eNOI and submittal to the Regional Water Board, and written approval by the Regional Water Board's Executive Officer.

7) If the enrolled Dischargers is not the landowner, the Discharger shall provide written notice of the Order and its requirements to any landowner whose parcel is covered by this Order.

3. Termination of Coverage

1) Dischargers may terminate coverage under this Order by providing a 30-day written notice to the Regional Water Board's Executive Officer and, if applicable, notice to the Third-Party Group. At a minimum, the written notice must include the reason for terminating coverage (e.g., transfer of ownership, Discharger applied for and obtained individual WDRs, discharge was discontinued, etc.). The Discharger shall continue to comply with this Order until the Regional Water Board notifies the Discharger in writing that coverage has been terminated.

2) Coverage under this Order is automatically terminated if confirmation of membership in the Third-Party Group is not received from the Third-Party Group during the annual Participant List submittal required by Attachment B: Section VII.C.1, or if the Third-Party Group indicates that the Discharger is no longer enrolled through the Third-Party Group. To obtain coverage, the Discharger shall re-submit an eNOI.

3) Any instance of noncompliance with this Order is grounds for enforcement action, and/or termination of coverage for waste discharges under this Order, subjecting the discharger to enforcement under the Water Code for further discharges of waste to surface or groundwater.

4. Fees

1) Dischargers shall pay an annual fee to the State Water Board in compliance with the WDRs fee schedule set forth in California Code of Regulations, title 23, section 2200.6. The Third-Party Group is responsible for collecting these fees from their enrolled members and submitting fees to the State Water Board.

2) A Third-Party Group may require Dischargers enrolled with them to pay any relevant fees necessary to comply with monitoring and reporting conditions of this Order or they must comply with monitoring and reporting requirements individually.

5. Enrollment of Newly Developed Commercial Vineyards

1) Commercial vineyards (Farm Areas[17] and appurtenant roads) developed after the date of Order adoption shall comply with all requirements of the Order upon enrollment. Dischargers who do not meet Order requirements upon the date of their enrollment shall be considered in violation of the Order and shall adhere to a Time Schedule Order (TSO) issued by the Executive Officer.

2) Commercial vineyards developed after the date of this Order shall be enrolled as

[17] The Farm Area refers to the planted area and appurtenant structures, vineyard avenues, maintenance areas, mixing and loading sites, and appurtenant storage yards on a commercial vineyard.

soon as the newly developed vineyard is planted.

3) To be eligible for coverage under this Order, Dischargers constructing a new or expanding commercial vineyard must comply with the provisions of CEQA including the Construction Mitigation Measures in Attachment D.

4) Commercial vineyards developed on an existing appurtenant road network (e.g., agricultural conversations) shall comply with all Farm Area requirements upon enrollment and shall meet all road requirements within 10 years of enrollment in accordance with Section II.C.1 of this Order.

B. Prohibitions

1) Dischargers must comply with discharge prohibitions contained in the Basin Plan and all other applicable statewide water quality control plans.

2) Discharge of waste from vineyard operations in a manner or location other than that described in the Order or the Notice of Applicability (NOA) is prohibited.

3) Discharges of waste from commercial vineyards that cause or contribute to an exceedance of applicable water quality objectives in surface water, adversely affect beneficial uses as defined in the Basin Plan, or cause or contribute to a condition of pollution or nuisance are prohibited. Creation of pollution, contamination, or nuisance (as defined in Water Code §13050) in surface water or groundwater is prohibited.

4) Discharge of waste classified as “hazardous,” as defined in California Code of Regulations, title 23, section 2521, or classified as “designated,” as defined in Water Code section 13173, is prohibited.

5) Discharge of irrigation return flows, or tailwaters to surface waters that cause or contribute to an exceedance of a water quality objective is prohibited.

6) Discharge of debris, soil, silt, sand, bark, plant waste (including grape pomace), sawdust, rubbish, refuse, oil or petroleum products, or other organic/earthen material or solid waste from any vineyard operation or construction to any surface water other than authorized by this Order is prohibited. Additionally, none of the materials listed above shall be stockpiled within the Streamside Area, adjacent to a surface water, or where materials may be discharged into a surface water.

7) The use of soil amendments containing any of the following is prohibited:

    a) Municipal solid waste, except for biodegradable waste meeting the definition of “compost” as defined in Public Resources Code section 40116.

    b) Septage, liquid waste oil, or grease.

c) Hazardous waste, designated waste, or any other waste determined by the Regional Water Board to pose a potential threat to water quality.

8) The following activities are prohibited during the winterization period between November 15 and April 1:

a) New planting, re-planting, or ground-disturbing activities on commercial vineyards.

b) Vehicle or equipment use of seasonal agricultural roads under saturated soil conditions[18]

c) New planting of commercial vineyards on Unstable Areas[19] is prohibited unless repaired under the direction of a Qualified Professional[20]

d) New agricultural drainage structures which discharge onto unstable slopes, earthen fills, or directly to a waterbody are prohibited.

[18] Saturated Soil Conditions means that soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during Timber Operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.

[19] Unstable Areas are areas showing evidence of mass downslope movement such as debris flow, landslides, rockfall, and hummock hill slopes with undrained depressions upslope. Examples are landforms exhibiting slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, and telephone poles that appear tilted; and tree trunks that bend uniformly as they enter the ground. Active sand dunes are unstable landforms.

[20] A Qualified Professional is an individual licensed in California under the Professional Engineer Act (e.g., Professional Engineer), Geologist and Geophysicist Act (e.g., Professional Geologist, Certified Engineering Geologist, or Certified Hydrogeologist), and Land Surveyors' Act (e.g., Professional Land Surveyor); a California Registered Professional Forester (RPF); or a Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD), a certified soil scientist registered through the American Society of Agronomy; Certified Professional in Erosion and Sediment Control (CPSEC)TM/Certified Professional in Storm Water Quality (CPSWQ)TM registered through EnviroCert International, Inc.; or a professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET). A Qualified Professional must only perform work they are qualified to complete, consistent with applicable licensing and registration restrictions, and must certify any work completed. See Business and Professions Code sections 6700-6799, 7800-7887, and 8700-8805, respectively.

9) The following are prohibited[21] within Streamside Management Areas[22]:

   a) Removal of riparian vegetation. Refer to Section II.C.1 for exceptions.

   b) New commercial vineyard development or vineyard replanting.

   c) Construction and/or installation of new permanent structures appurtenant to commercial vineyard operations. (e.g., agricultural roads and buildings).

   d) Storage of chemicals, oil, or petroleum products.

   e) Placement of construction materials, trash rubbish, refuse, plant waste, or other organic or earthen material or solid waste.

   f) Application of chemicals, including fertilizers and pesticides, except as allowed by the California Department of Pesticides Regulation.

   g) Grading or other ground disturbing activities, including operation of heavy machinery, except as authorized by a local, state, and/or federal permit.

[21] Refer to Section II.C.1 for activities allowed in Streamside Areas

[22] A Streamside Area is the area between the waterside edge of riparian vegetation canopy (or the nearest edge of the high-water mark if riparian vegetation canopy is not present) and the field side edge of a vegetated buffer. A vegetated buffer is a narrow, permanent strip of dense perennial vegetation (including riparian vegetation) where no crops are grown and which is established parallel to the contours of and perpendicular to the dominant slope of the land applications area for the purposes of slowing water runoff, enhancing water infiltration, trapping pollutants bound to sediment and minimizing the risk of any potential nutrients or pollutants from reaching surface waters. Riparian vegetation is the vegetation (including dead, dying, or decaying vegetation) along a watercourse that is distinguished from other vegetation by its dependence on the combination of soil moisture and other environmental factors provided by a permanent or intermittent stream. High-water mark is that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Riparian vegetation canopy is the more or less continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody species.

C. General Requirements

1. Required Management Practices

1) All management practices shall be properly designed, installed[23], maintained, and promptly repaired. Maintenance of management practice shall include periodic inspection of management practices during and after the winterization period to confirm effectiveness and prioritize repair.

2) Dischargers shall implement management practices that minimize or prevent excess nitrogen application relative to crop need. Proper nutrient management will minimize or prevent nutrients, such as nitrogen, from reaching state waters. Dischargers shall take site-specific conditions into consideration in identifying practices that will be implemented to minimize or prevent nitrate leaching past the root zone.

3) Dischargers shall implement the following minimum sediment and erosion control management practices[24] in all hydrologically connected[25] Farm Areas:

[23] Engineered management practices shall be designed and installed in compliance with plans and specifications prepared by a civil engineer.

[24] Accepted sediment and erosion control management practice standards and design can be found in the NRCS-USDA National Conservation Practice Standards; USEPA's National Management Measures to Control Nonpoint Source Pollution from Agriculture; Handbook of Forest, Ranch, and Rural Roads; A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads; California's Management Measures for Polluted Runoff; Best Management Practices for VESCO Agricultural Erosion and Sediment Control; The Land Steward's Guide to Vineyard and Orchard Erosion Control; the California Code of Sustainable Winegrowing Workbook, and the California Stormwater Quality Association BMP Handbook.

[25] Farm areas with a continuous surface flow path to a natural stream channel during a storm runoff event (also referred to as hydrologic connectivity). Connectivity usually occurs through agricultural drainage structures, drainage inlets, road ditches, gullies, and channels.

a) Maintain ground cover[26] at a minimum 75 percent coverage[27] during the winterization period between November 15 and April 1.

b) Materials to install ground cover shall be staged within the Farm Area by October 15 and installed at least 48 hours prior to a Qualifying Storm Event[28].

c) Implement management practices to minimize or prevent erosion and

[26] Ground cover refers to the following practices: (1) Cover crop is grasses, legumes, forbs, or other herbaceous plants established in vineyards and orchards to provide seasonal or year-round ground cover for conservation purposes. (2) Annual cover crops are permanent vegetation that do not need to be re-seeded every year (3) Perennial cover crops are crops are planted in late summer to early Fall of each year. (4) Low-till crops are grown with practices that limit the soil-disturbing activities used to grow and harvest crops in systems where the field surface is tilled prior to planting. (5) No-till crops are planted and grown in narrow slots or tilled strips established in the untilled seedbed of the previous crop. This practice includes maintaining most of the crop residue on the soil surface throughout the year, commonly referred to as no till. The common characteristic of this practice is that the only tillage performed is a very narrow strip prepared by coulters, sweeps, or similar devices attached to the front of the planter. (6) Conservation cover is establishing and maintaining perennial vegetated cover to protect soil and water resources on lands needing permanent protective cover that will not be used for forage production. (7) Effective soil cover includes mulching, straw mulching, plant residues or other suitable materials produced off site to the land surface. Mulching is used on bare, exposed soil surfaces that are deemed to be potential critical erosion areas. In most cases, mulch will consist of grain straw residue, but may include wood chips, leaves, composted yard waste, etc. (NRCS Conservation Practice Standards 2016).

[27] Ground cover can be considered all materials in contact with the soil surface. This mainly consists of rock fragments, portions of live vegetation including basal area and plant leaves that touch the soil, plants and plantlike organisms, such as mosses, algae, ferns, fungi, duff, plant litter, crop residue, applied materials, including manure, mulch, and manufactured erosion control products. To assess percent cover, a sampling procedure placed in a uniform grid shall be used to determine the ground cover of the area prior to operations. Plots shall be placed on a 50-foot x 50-foot grid or a minimum of 10 plots per contiguous area. Ground cover shall be measured from the percent bare soil covering the circle relative to the area absent of bare soil within a 1/300th acre circle (6'8"). Ground cover shall be determined from the average amount of cover within each plot, within the project area. Refer to the VESCO guidelines for more information: VESCO Guidelines (https://sonomacounty.ca.gov/Main%20County%20Site/General/Sonoma/Sample%20Dept/Divisions%20and%20Sections/Agriculture/Ordinances/GMO/_Documents/VESCO%20BMP%20and%20Technical%20Report%20Guidelines_Final.pdf).

[28] A Qualifying Storm Event is any weather pattern that is forecasted by the National Weather Service to have a 50 percent or greater chance of producing 0.5 inches or more precipitation on a site within a 48 hour or greater period between rain events.

sediment discharge for controllable sediment discharge sources[29] (CSDS) which may include landslides, areas of slope instability[30], areas of headward erosion, rills and gullies, soil stockpiles, seasonal vineyard roads/avenues[31], equipment staging areas, mixing and loading sites, or any other site discharging or threatening to discharge sediment to surface water.

d) Controllable sediment discharge sources shall be prioritized for management practice implementation or repair and shall have critical area planting[32], conservation cover[33], linear sediment controls (e.g., silt fences, wattles) or other applicable management practices[34] implemented during the winterization period between November 15 and April 1 and prior to a Qualifying Storm Event outside of the winterization period.

e) Dischargers shall implement erosion and sediment control measures and comply with all mitigation measures in Attachment D during construction of ground-disturbing management practices[35]. These mitigation measures shall be reported in accordance with Attachment A: Section VI.B.5 and Attachment B: Section VI.C.6.

4) Dischargers shall implement and maintain[36] the following minimum management

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[29] CSDS are areas that discharge or have the potential to discharge sediment to waters of the state in violation of water quality standards or other requirements of this Order caused or affected by human activity and may feasibly and reasonably respond to management practices.

[30] Areas of slope instability are areas of soil or rock prone to mass wasting, including slides, falls, slumps, and flows.

[31] Seasonal vineyard roads/avenues are roads within and around the planted area not designed for year-round use. These roads have a surface that is suitable for maintaining a stable operating surface during the period of use.

[32] Planting vegetation on critically eroding areas that require extraordinary treatment in accordance with NRCS Conservation Practice Standards. Critical area planting establishes permanent vegetation on sites that have, or are expected to have, high erosion rates, and on sites that have conditions that prevent the establishment of vegetation with normal practices.

[33] Conservation cover is establishing and maintaining perennial vegetated cover to protect soil and water resources on lands needing permanent protective cover that will not be used for forage production (NRCS Conservation Practice Standard Overview 2016)

[34] See footnote 25 for accepted sediment and erosion control management practice standards references.

[35] These measures could include but are not limited to practices to prevent erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls; minimizing soil disturbance areas; implementing practices to maintain water quality, including silt fences, stabilized construction entrances, and storm drain inlet protection; limiting construction to dry periods; and revegetating disturbed areas.

[36] Maintenance of management practice shall include periodic inspection of management practices during and after the winterization period to confirm effectiveness and prioritize repair.

practices on all hydrologically-connected[37] appurtenant agricultural roads[38]. Existing road segments shall meet the following specification within 10 years of the date of the adopted order. New road segments shall meet the following specification:

a) Ditches are drained frequently by functional ditch relief culverts and/or rolling dips.

b) Outflow from ditch relief culverts does not directly discharge to streams.

c) Ditches and road surfaces drainage do not discharge (through culverts and/or rolling dips) onto active or potential landslides and/or into gullies.

d) Fine sediment contributions from roads, cutbanks, and ditches are minimized by utilizing road surface shaping (outsloping, insloping, or crowning), rolling dips, ditch relief culverts, water bars, and other measures to disperse road surface runoff and reduce or eliminate sediment delivery to the surface waters.

a. Streamside Management Area

1) Activities allowed within Streamside Areas[39] under this Order are limited to the following:

a) Restoration and planting of vegetation which is native to California and naturally occurs in the local HUC-8 watershed.

b) Work necessary for protection of public health or safety, including fire fuel management as required by California Fire Code section 304.1.2.

c) Streamside area restoration outside of jurisdictional waters of the United States or waters of the State[40].

d) Removal of riparian vegetation and control of invasive species as part of

[37] See 'hydrologically-connected' definition in Appendix I: Acronyms and Definitions.

[38] Appurtenant Agricultural Road means an all-season road which connects or is used to access vineyard blocks under the ownership or control of the vineyard owner that will be used for vineyard operations.

[39] See definition of Streamside Area in Appendix I: Acronyms and Definitions.

[40] Streambank restoration within wasters of the United States or waters of the state requires separate regulatory coverage under either Clean Water Act section 404/401 or alternative waste discharge requirements. See Water Quality Certification (https://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification/)

necessary maintenance of existing watercourse crossings[41], linear utilities, and permitted surface water diversions[42]. Maintenance of existing seasonal roads and vineyard avenues which are revegetated before November 15th of each year to function as vegetated buffers.

2) Dischargers shall implement the following minimum management practices in all Streamside Areas:

   a) Allow the natural establishment and abundance of native riparian vegetation.

   b) Allow sufficient native riparian vegetation to minimize or prevent discharge of sediment, nutrients, and pesticides to surface waters.

   c) Allow essential functions supporting beneficial uses (e.g., sediment filtering, woody debris recruitment, streambank stabilization, nutrient cycling, pollutant filtering, and shading).

3) For new and replanted vineyards, install and/or maintain vegetated buffers to minimize or prevent discharges of sediment, nutrients, and pesticides to surface waters. Vegetated buffers shall be the minimum horizontal width (feet) listed in Table 5[43].

4) For existing vineyards with seasonal roads and vineyard avenues located within the minimum vegetated buffer width listed in Table 5, install ground cover to achieve a minimum of 85 percent cover prior to November 15th of each year.

5) Existing all-season agricultural roads located adjacent to Streamside Areas shall be improved and maintained in a manner that minimizes or prevents controls the discharge of sediment to surface waters through implementation of road

[41] Maintenance of existing watercourse crossings without the need for additional permitting by the Regional Water Board is limited to removal of vegetation impacting the use and function of the crossing (e.g., preventing vehicle access across the crossing or limiting the flow of water through the crossing infrastructure), clearing and maintaining watercourse function using hand tools or the manual placement of energy dissipating rock.

[42] Installation of surface water diversion infrastructure requires a valid water right from the State Water Board Division of Water Rights and may require additional permit coverage from the Regional Water Board through an approved 401 Water Quality Certification or alternate waste discharge requirements.

[43] NRCS Technical Note on Riparian Buffer Design and Species Considerations (https://www.nrcs.usda.gov/plantmaterials/idpmstn7248.pdf) and Dewalle, David. (2010). Modeling Stream Shade: Riparian Buffer Height and Density as Important as Buffer Width1. JAWRA Journal of the American Water Resources Association. 46. 323 - 333. 10.1111/j.1752-1688.2010.00423.x.

management practices as described in this section.

Table 5: Vegetated Buffer Minimum Horizontal Width (feet)

Perennial[44] Stream	Ephemeral[45]/ Intermittent[46] Stream	Hydrologically Connected Undesignated[47] Channel[48]	Wetland[49]	Lake, Pond, or On-Stream Reservoir
50	25	10	50	50

6) Existing stream crossings shall meet the following specifications within 10 years of the date of the adopted order:

   a) Critical dips shall be installed at the approaches to culverted crossings that have a diversion potential.

   b) Culvert inlets with high plug potential shall install trash barriers or deflection structures.

7) New and replaced stream crossings shall meet the following specifications, after receiving separate approval from the Regional Water Board[50]:

   a) Drainage structure is designed for the 100-year flood flow including woody

[44] A stream that holds water throughout the year.

[45] A body of flowing water that contains water for only part of the year, but more than just after rainstorms and at snowmelt as shown in the NHD shapefile.

[46] A body of flowing water that contains water only during or after a local rainstorm or heavy snowmelt as shown in the NHD shapefile.

[47] Channels not part of the NHD dataset.

[48] Includes above-ground agricultural drainage structures.

[49] An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation. (https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf).

[50] Work within wasters of the United States or waters of the state requires separate regulatory coverage under either Clean Water Act section 404/401 or alternative waste discharge requirements (https://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification/)

debris and sediment[51].

b) Do not have potential to divert the stream out of its channel and cause the stream to flow down the road rather than flow directly over the road fill and back into its natural channel.

c) Culvert inlets have a low plug potential (trash barriers or deflectors are installed where needed).

d) Culverts are installed at the base of the fill and in line with the natural channel.

e) Bridges have stable, non-eroding abutments and do not significantly restrict 100-year flood flow.

f) Stream crossing fills are stable.

g) Approaching road surfaces and ditches are "disconnected" from streams and stream crossing culverts to the maximum extent feasible using road shaping and road drainage structures.

h) Class I (fish-bearing) stream crossings meet California Department of Fish and Wildlife and National Marine Fisheries Service fish passage criteria.

D. Monitoring Requirements

1. Monitoring Requirements for Dischargers Enrolled Individually

1) Dischargers enrolled individually, and not part of a Third-Party Program, shall comply with the following monitoring requirements as described in Attachment A:

a) Surface Water Monitoring: Dischargers shall monitor all hydrologically-connected stormwater discharge points at the location where storm water leaves the Farm Area for turbidity and pesticides. In response to turbidity benchmark exceedances and pesticide detections, Dischargers shall implement adaptive management as described in Attachment A: Section III.D. If adaptive management does not resolve water quality benchmark exceedances, Dischargers shall develop and implement a Water Quality Management Plan as described in Section II.C.5 of this Order. Results of Surface Water Monitoring shall be submitted in the Annual Compliance Report and analyzed for trends in the Trend Monitoring Report as described

[51] Cafferata, P., T. Spittler, M. Wopat, G. Bundros, and S. Flanagan, 2004. Designing Watercourse Crossings for Passage of 100-Year Flood Flows, Wood, and Sediment. California Department of Forestry and Fire Protection: Sacramento, CA.

in Attachment A: Section VI.A.

b) Groundwater Trend Monitoring: Dischargers shall monitor a sufficient number[52] of wells to characterize conditions and trends in groundwater quality across their enrolled parcels for the parameters identified in Table A.4 in Attachment A: Section IV. Results shall be submitted and analyzed for trends in the Trend Monitoring Report as described in Attachment A: Section VI.A.

c) Drinking Water Supply Well Monitoring: Dischargers shall conduct monitoring of all drinking water supply wells present on enrolled parcels in accordance with the monitoring parameters and schedule in Attachment A: Section IV.A. If a well is identified as either exceeding (1) the Maximum Contaminant Level (MCL) for nitrate, or (2) a Human Health Reference Level (HHRL), the Primary MCL, or a Public Health Goal for a 6800(a) listed pesticide, the Discharger shall notify the Regional Water Board and users of the well in a timely fashion in accordance with the elements described in Attachment A: Section IV.A.

2. Monitoring Requirements for Dischargers Enrolled in a Third-Party Group

1) Dischargers enrolling in an approved Third-Party Group shall comply with the following monitoring requirements as described in Attachment B for Dischargers Enrolled in a Third-Party Group:

a) Drinking Water Supply Well Monitoring: Dischargers shall conduct monitoring of all drinking water supply wells present on enrolled parcels in accordance with the monitoring parameters and schedule Attachment B: Section IV.F. If a well is identified as exceeding the MCL for nitrate or, a Human Health Reference Level (HHRL), the Primary MCL, or a Public Health Goal for a 6800(a) listed pesticide, the Discharger shall notify the Regional Water Board and users of the well in a timely fashion in accordance with the elements described in Attachment B: Section IV.F. Dischargers may elect to have a Third-Party Group conduct Drinking Water Supply Well Monitoring, however results shall be submitted individually.

b) Agricultural Drainage Structure Monitoring: The Discharger or Third-Party Group shall annually monitor turbidity values in 20 percent of agricultural

[52] Dischargers may reference Department of Water Resources guidance document Section D (Degraded Water Quality) to determine sufficient monitoring well network for groundwater quality assessment (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).

drainage structures[53] on each vineyard on a 5-year cycle[54] at all outlets that discharge from the Farm Area to surface waters. Results from monitoring of agricultural drainage structures shall be submitted to the Third-Party Group. The Third-Party Group shall aggregate monitoring results by HUC12 for inclusion in the Annual Water Quality Monitoring Report and in the Trend Monitoring Report. Dischargers with turbidity results exceeding the benchmark shall implement adaptive management as described in Attachment B: Section III.D.2. If adaptive management does not reduce turbidity values below the benchmark, Dischargers shall develop and implement a Water Quality Management Plan as described in Section II.C.5 of this Order.

3. Monitoring Requirements for Third-Party Groups

1) Third-Party Groups shall conduct the following representative monitoring on behalf of their enrolled Dischargers:

   a) Representative Surface Water Quality Monitoring: The Third-Party Group shall submit a Workplan for Executive Officer review and approval. The Workplan shall propose a representative surface water quality monitoring program that includes all the following elements and requirements of Attachment B: Section III: tributary turbidity monitoring, tributary streambed monitoring, and pesticide monitoring. Following approval of the Workplan by the Executive Officer, representative surface water quality monitoring shall be implemented accordingly, and the results of the representative surface quality monitoring program shall be reported in the Trend Monitoring Report as described in Attachment B: Section VII.E. The Third-Party shall respond to increasing trends[55] in pesticide detections or concentrations detected through requirements set forth in Attachment B: Section III.C.1 which involves grower notification and grower outreach.

   b) Groundwater Trend Monitoring: The Third-Party Group shall submit a

[53] Agricultural drainages structures are features that collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat, or filter stormwater runoff, including detention and retention basins, overland flow paths, pipes, channels, and the inlets and outlets to these features. These can include vineyard tile drains and similar subsurface drainage structures. They do not include drainage alteration for private roads and driveways, dams, reservoirs, lakes, ponds, and structures.

[54] During each 5-year cycle, all agricultural drainage structures on a vineyard shall be monitored, with 20 percent monitored annually. If there are less than five agricultural drainage structures to monitor, the Discharger shall sample one per year until all are sampled and then restart in the next five-year cycle.

[55] The Third-Party Group shall propose methodology for statistical analysis of data in the Workplan.

Workplan for and implement a representative groundwater trend monitoring well network to determine current water quality conditions and to develop long-term groundwater quality information that can be used to evaluate the regional effects of vineyard cultivation in accordance with all requirements in Attachment B: Section IV. Following approval by the Executive Officer, representative surface water quality monitoring shall be implemented accordingly, and results shall be submitted and analyzed for trends in the Trend Monitoring Report as described in Attachment B: Section VII.E.

2) Modifications: After a minimum of 5 years following implementation of an approved Water Quality Monitoring Workplan, Third Party Groups may submit a request to the EO for a modification to the scope and frequency of water quality monitoring and reporting. The request must be supported by water quality monitoring data. For example, tributary turbidity monitoring indicating decreasing trends in suspended sediment load relative to stream stage, and/or tributary streambed condition monitoring indicating decreasing trends in fine sediment and increasing trends of surface roughness. Other factors supporting the request for modification must include overall degree of discharger compliance with minimum management practice requirements. Discharger compliance with minimum management practice requirements shall be assessed through a combination of factors including, but not limited to: (1) Farm Evaluation data, (2) inspection reports, or (3) information supplied by the Third-Party Group.

E. Reporting Requirements

1. General Reporting Requirements

1) All water quality monitoring data shall be submitted and reported in accordance with the following sections within the Monitoring and Reporting program:

   a) Dischargers enrolled individually shall report all water quality monitoring data in accordance with Attachment A: Section V.

   b) Dischargers Enrolled in a Third-Party Group shall submit all water quality monitoring data in accordance with Attachment B: Section V.

   c) The Third-Party Group shall submit all water quality monitoring data in accordance with Attachment B: Section V on behalf of their enrolled Dischargers.

2) As describe below, Dischargers must complete a Farm Evaluation and Irrigation and Nitrogen Management Plan (INMP) using the Farm Evaluation and INMP Templates in Attachment E: Templates for Dischargers enrolled in a Third-Party Program or the Annual Compliance Form template in Attachment E: Templates for Dischargers enrolling individually.

3) The Annual Compliance Report shall be uploaded to GeoTracker by July 1st of each year.

2. Reporting Requirements for Dischargers Enrolled Individually

1) Dischargers enrolled individually shall submit an Annual Compliance Report that consists of:

    a) Farm Evaluation,

    b) Irrigation and Nutrient Management Plan (INMP),

    c) Outreach event attendance,

    d) Individual water quality monitoring results, and

    e) CEQA Mitigation Measures Monitoring for mitigation measures in Attachment D.

3. Reporting Requirements for Dischargers Enrolled in a Third-Party Group

1) Dischargers enrolled in an approved Third-Party Group may elect to submit compliance reporting to the Third-Party Group. If this option is elected, the Third-Party Group shall submit an Annual Compliance Report on behalf of enrolled Dischargers that consists of:

    a) The Third-Party Group participant list,

    b) Farm Evaluation data,

    c) INMP summary data,

    d) Nitrogen Applied and Removed (AR) data, reported by township, range and section,

    e) Outreach event attendance records, and

    f) CEQA Mitigation Monitoring in accordance with the schedule and details as outlined in Attachment D.

2) The Third-Party Group shall develop anonymous Discharger identification numbers for the reporting of enrolled Discharger data. The Third-Party shall maintain and track Discharger ID from year to year.

3) The Third-Party Group shall submit Farm Evaluation and INMP Summary Report data by anonymous Discharger ID, APN, and by township.

4) The Regional Water Board's Executive Officer may require the Third-Party Group

to directly provide data for individual Dischargers (without anonymous identifiers) in connection with the implementation of a Water Quality Management Plan, as described in Section II.C.5.

a. Farm Evaluation

1) All Dischargers shall implement and submit an individual Farm Evaluation as detailed in Attachment A: Section V.B.1 and Attachment B: Section V.A to identify the type and location of management practices currently used on their commercial vineyard and additional management practices based on current conditions needed to prevent or minimize erosion and sediment, nutrient, and pesticides discharges to waters of the state from all Farm Area sources.

2) A copy of the Farm Evaluation shall be maintained at the Discharger's farming headquarters or primary place of business and shall be provided to Regional Water Board staff on request.

3) Dischargers shall ensure that all management practices identified in the Farm Evaluation are properly operated, maintained, and promptly repaired in accordance with Section II.C of this Order. Dischargers shall annually certify in their Farm Evaluation that maintenance and periodic inspection of management practices were completed. Dischargers shall indicate where management practices are not sufficient to meet the requirements of the Order and shall implement adaptive management in response.

4) A Discharger or group of Dischargers may request less frequent Farm Evaluation submittals to the Regional Water Board's Executive Officer if Farm Evaluation reporting has occurred for at least five (5) consecutive years, there have been minimal changes to reported practices in the Farm Evaluation, and no changes are anticipated in the next five years.

b. Irrigation and Nitrogen Management Plan (INMP)

1) Dischargers shall prepare and implement an Irrigation and Nitrogen Management Plan (INMP) for each field[56] and submit their INMP for the previous growing season in the Annual Compliance Report either to the Regional Water Board or Third-Party Group as detailed in Attachment A: Section V.B.2 and Attachment B: Section VI.B.

2) The INMP shall include the information necessary for calculating an Applied/Removed (A/R) ratio for nitrogen, and an Applied-Removed (A-R) difference for nitrogen, as defined in the equations in Table A.5 of Attachment A

[56] Where this Order requires reporting by field, Dischargers may report data for a portion of a field or for multiple fields provided that the reported area has (1) the same fertilizer inputs, (2) the same irrigation management, and (3) the same management practices (e.g., vineyard blocks).

and Table B.5 of Attachment B and collectively referred to as Nitrogen Applied and Removed (AR).

3) A copy of the INMP shall be located at the Discharger's farming operations headquarters or primary place of business. The Discharger must provide the INMP to Regional Water Board staff, if requested.

4) All Dischargers in groundwater high vulnerability areas[57] must have the INMP certified. The INMP shall be certified in one of the following ways:

   a) Certified by an irrigation and nitrogen management planning specialist[58]. The specialist that certifies the INMP must be capable of answering questions relevant to the INMP and should be fully competent and proficient by education and experience in the field(s) relevant to the development of an INMP; or

   b) Self-certified by the Discharger who attends a California Department of Food and Agriculture (CDFA), or other Executive Officer approved Third-Party training for INMP certification. The Discharger must retain written documentation of their attendance in the Third-Party training; participate and obtain documentation of such participation in any continuing education required by CDFA; and make such documentation available to the Regional Board on request; or

   c) Self-certified by the Discharger that the plan adheres to a site-specific recommendation from the Natural Resources Conservation Service (NRCS) or the University of California Cooperative Extension. The Discharger must retain written documentation of the recommendation provided and make such documentation available to the Regional Board on request; or

   d) Self-certified by the Discharger if the Discharger states that the Discharger applies no fertilizer and no recycled water to the field; or

   e) Certified in an alternative manner approved by the Executive Officer. Such

[57] See 'groundwater high vulnerability groundwater basin' definition in Appendix 1: Acronyms and Definitions.

[58] A certified irrigation and nitrogen planning specialist is a Certified Crop Advisor (CCA) who has completed the California Nitrogen Management exam through The California Department of Food and Agriculture (CDFA), the University of California – Davis, the American Society of Agronomy's (ASA) International Certified Crop Adviser (ICCA) Third-Party and/or the CCA – Western Region (WR) Board and takes the required continuing education credits. Dischargers may self-certify their INMP if they take the CDFA Irrigation and Nitrogen Management Training for Grower Self-Certification, pass the Irrigation and Nitrogen Management Training and Exam and maintain the certification through continuing education (https://www.cdfa.ca.gov/is/ffldrs/frep/training.html).

approval will be provided based on the Executive Officer's determination that the alternative method for preparing the INMP meets the objectives and requirements of this Order.

i. Nitrogen Applied and Removed Statistical Outliers

1) Following the initial five years of INMP reporting, a set of statistical outliers[59] for Dischargers enrolled individually will be determined by the Regional Water Board based on reported AR data as described in Attachment A and Attachment B.

2) Following the initial five years of INMP reporting, the Third-Party Group may propose an approach in the Groundwater Protection Plan (see Attachment B: Section VI.F) on behalf of their enrolled Dischargers, to be approved by the Regional Water Board's Executive Officer after public notice and comment, that defines a set of statistical outliers based on reported AR data. This approach may define statistical outliers on an annual or multi-year basis not exceeding three years.

3) The Regional Water Board shall define a methodology for determining statistical outliers if the Third-Party Group does not submit a methodology in the Groundwater Protection Workplan by **July 1st,** of the seventh year following initial INMP reporting. Using this methodology, the Third-Party shall notify statistical outliers annually.

4) Dischargers identified as statistical outliers by the Regional Water Board or the Third-Party Group shall have their next INMP certified by an irrigation and nitrogen management planning specialist. On their next INMP, these Dischargers must also report that they were notified as outliers for reported AR data and reflect additional or improved management practices implemented to address potential over-application of nitrogen.

ii. Groundwater Protection Formula and Targets

1) Following AR data collection, the Executive Officer shall either establish or approve from the Third-Party Group township-level nitrogen targets for existing priority groundwater basins and shall evaluate groundwater monitoring data to determine if any additional geographic areas qualify as "high vulnerability areas" where discharges from commercial vineyards may be causing or contributing to exceedances of water quality objectives, or a trend of degradation of groundwater that may threaten applicable Basin Plan beneficial uses. The methodology for determining the targets shall be subject to public review and comment.

[59] Examples of methodologies for calculating statistical outliers may include (but are not limited to): interquartile methods, z-scores, graphical methods depending on the data.

2) By **July 1st** of the seventh year following INMP reporting, the Third-Party Group may elect to submit a Groundwater Protection Workplan to propose a Groundwater Protection (GWP) Formula[60] to the Executive Officer as described in Attachment B: Section VII.F. If this option is elected, the Third-Party Group shall use the GWP Formula to compute GWP Values[61] for each township in high vulnerability areas. The proposed GWP Formula and Values shall be submitted to the Executive Officer for approval, following an opportunity for public review and comment.

3) By July 1st after approval of the GWP Formula and Values, the Third-Party Group shall submit Groundwater Protection Targets[62] (GWP Targets) for each township within a high vulnerability area. The GWP Targets shall be reviewed and revised as necessary every five years.

4) Following approval of GWP Targets, the Third-Party Group shall report annual and 5-year average nitrogen loading rates for each township in the Trend Monitoring Report and compare the actual loading rate with the township's GWP Targets.

5) For townships that exceed the GWP Target in a single Trend Monitoring Report period, the Third-Party Group will propose an outreach strategy for approval by the Executive Officer that will (1) notify all growers within the township, and (2) focus on adaptive management of irrigation and nitrogen management practices within that township.

6) The Third-Party Group shall notify all growers within each township that exceeds its GWP Target in 2 or more Trend Monitoring Report cycles. Within 2 years of notification, all growers in that township shall submit a WQMP in accordance with Section II.G.2 of this Order that addresses irrigation and nitrogen management.

F. Outreach and Education

1) Dischargers shall participate in outreach and education[63] annually that focuses on:

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[60] The GWP Formula generates GWP Values, expressed as either nitrate-N loading numbers or concentrations of nitrate in water (e.g., mg/L), reflecting the influence of total applied nitrogen, total removed nitrogen, recharge conditions, and other relevant and scientifically supported variables that influence the potential average concentration of nitrate in water expected to reach groundwater in a given township over a given time period.

[61] GWP Values are calculated using the GWP Formula and are based on reported INMP data and reflect discharge estimates from the bottom of the root-zone. GWP Targets considers GWP Values to establish the nitrogen loading rate necessary to comply with the Antidegradation Policy and Basin Plan.

[62] GWP Targets considers GWP Values to establish the nitrogen loading rate necessary to comply with the Antidegradation Policy and Basin Plan.

[63] Outreach and education sources include formal classroom training, individual meetings with a

(1) actions necessary to attain compliance with water quality standards; and (2) and practices to prevent or minimize the discharge of sediment, pesticides, and nutrients to receiving waters.

2) Dischargers shall document annual outreach and education in the Annual Compliance Form as specified in Attachment A and Attachment B.

G. Adaptive Management

1) Adaptive management is an implementation and/or improvement of management practices where visual observations and/or water quality monitoring data indicate that current practices on the commercial vineyard may not be sufficient to minimize or prevent the discharge of waste.

2) The general and iterative process of adaptive management includes: (1) water quality data indicates adaptive management trigger, (2) noticing to the Regional Water Board via Annual Compliance Report, (3) outreach and education event participation, (4) review of the current management practices against published standards and implementation of practice improvements as needed, and (5) development and implementation of a Water Quality Management Plan if exceedances continue. The schedule and thresholds are further defined in Attachment A: Section III, and Attachment B: Section III.

1. Adaptive Management Triggers

1) Adaptive management shall be triggered for any of the following reasons:

   a) Consecutive exceedances of the 250 Nephelometric Turbidity unit (NTU) turbidity benchmark as defined and described in Attachment A: Section III.B for Dischargers enrolled individually, and in Attachment B: Section III.C for Dischargers enrolled in a Third-Party Group.

   b) An increasing trend in the concentration of the detected pesticide over a five-year period as described in Attachment A: Section III.B for Dischargers enrolled individually.

   c) Required by the Executive Officer in response to an exceedance of any pesticide water quality objective for all Dischargers within the sampled HUC-12 in accordance with Attachment B: Section III.C for Dischargers

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qualified trainer, printed materials, and/or internet-based training with an approved Third-Party Group, University of California Cooperative Extension (UCCE), Natural Resources Conservation Service (NRCS), Resource Conservation Districts (RCDs), Regional or State Water Boards, Department of Pesticide Regulation, California Department of Fish and Wildlife, California Department of Food and Agriculture, or other comparable organizations.

enrolled through a Third-Party Group.

d) Required by the Executive Officer where current management practices are insufficient to minimize or prevent the discharge of excess sediment or other pollutants.

2. Water Quality Management Plan

1) A Water Quality Management Plan (WQMP) shall be developed and implemented when adaptive management and/or existing management practices are insufficient to achieve the goal of preventing or minimizing the discharge of waste to surface water.

2) A WQMP shall be developed in response to the following as defined in the MRP Sections listed below:

   a) Four consecutive exceedances of the turbidity benchmark of 250 NTU in any required on-farm surface water sampling location in accordance with Attachment A: Section III and Attachment B: Section III.

   b) Four consecutive reports of a pesticide above the MDL following a five-year increasing trend in concentration of that pesticide for Dischargers enrolled individually in accordance with Section II.D.1 of this Order.

   c) Required by the Executive Officer in response to exceedances of a pesticide water quality objective for Dischargers within the HUC-12 that the sampling occurred in accordance with Attachment B: Section III.

   d) Failure to implement required management practices in this Order; or

   e) Required by the Regional Water Board Executive Officer when deemed necessary (e.g., in response to an inspection which documents violations of the Order).

3) The WQMP shall describe and provide a schedule for the implementation of management practices to meet the requirements of the Order and achieve the goal of preventing or minimizing the discharge of waste to surface waters.

4) At a minimum the WQMP must include:

   a) An inventory of CSDS in the Farm Area.

   b) A plan for compliance that addresses and includes:

      i) A demonstration that implementing management practices will address and comply with requirements and prohibitions.

ii) Prioritization of efforts to minimize or prevent the discharge of waste, but not limited to, severity of threat to water quality and beneficial uses, the feasibility of source control, and source site accessibility.

iii) Schedule of implementation

iv) A proposed management practice effectiveness monitoring plan that documents effectiveness and requires adaptive management of practices until the WQMP is deemed complete by the Executive Office and the Farm Area complies with all requirements and prohibitions in this Order.

5) The WQMP must be prepared and certified in one of the following ways:

a) The WQMP is developed and certified by a Qualified Professional and submitted as part of the Annual Compliance Report to the Regional Water Board; or

b) The WQMP is prepared and certified in an alternative manner approved by the Executive Officer. Such approval will be provided based on the Executive Officer's determination that the alternative method for preparing the WQMP meets the objectives and requirements of this Order.

6) Following certification, the Discharger shall submit the WQMP either through GeoTracker or through their Third-Party Group. The Discharger shall implement the WQMP and submit an annual update beginning one year after the initial WQMP submittal and annually thereafter until the following criteria are met:

a) The Farm Area complies with all requirements of this Order, and

b) There are no further exceedances of the turbidity benchmark in the required on-farm sampling locations for which the WQMP was developed, or

c) There are no further reports of a pesticide above its MDL or no increasing trend in concentration of that pesticide for Dischargers enrolled individually, or

d) There are no further exceedances of a pesticide water quality objective within the Discharger's HUC12 for Dischargers enrolled through a Third-Party Group.

7) The WQMP Update shall include the following elements:

a) Implementation update of management practices.

b) Monitoring and recordkeeping necessary to demonstrate the effectiveness of implemented management practices to comply with all requirements and

prohibitions of this Order.

8) Once requirements are met, the Regional Water Board will deem the WQMP complete and notify the Discharger. The Discharger may then cease submitting annual WQMP updates.

3. Offsite Turbidity Source Determination

1) In the case that the Discharger has implemented adaptive management, has developed and implemented a WQMP, and continues to experience exceedances of the 250 NTU turbidity benchmark, the Discharger may submit an offsite turbidity source determination to the Executive Officer.

2) The offsite turbidity source determination must include a map showing location(s) of run-on and impacted discharge points, photographs, and all site evaluation records that demonstrate that the exceedances are not related to vineyard activities and are solely attributable an offsite discharge. The offsite turbidity source determination shall be certified by a Qualified Professional.

3) Upon Executive Officer approval of the offsite turbidity source determination, the Discharger shall continue sampling those impacted agricultural drainage structures and/or discharge points and reporting results but is not obligated to perform adaptive management or corrective action.

4) An update of the offsite turbidity source determination shall be submitted to the Executive Officer for approval every five years in order for the Discharger to be exempt from adaptive management or corrective action in response to turbidity benchmark exceedances. This update shall be certified by a Qualified Professional.

5) Onsite sources of waste discharge that are not appurtenant to the vineyard operation on the enrolled parcel(s) may be subject to a ROWD and individual waste discharge requirements, a WQMP, or another regulatory mechanism.

E. Provisions

1. Noncompliance

1) Dischargers shall comply with all conditions of this Order. Noncompliance is a violation of the Porter-Cologne Water Quality Control Act (Water Code, § 13000 et seq.) and grounds for: (1) an enforcement action; (2) termination, revocation and reissuance, or modification of these waste discharge requirements; or (3) denial of an Order renewal application, or a combination thereof. Third-Party Group(s) shall also comply with all relevant conditions of this Order on behalf of the Dischargers enrolled through their program(s).

2) Dischargers shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally to the Regional Water Board

office and the Office of Emergency Services within twenty-four (24) hours of when the Discharger becomes aware of the incident. If noncompliance occurs outside of business hours, the Discharger shall leave a message on the Regional Water Board's office voicemail. A written report shall also be provided within five business days of the time that the Discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance.

2. Deadline Extension Requests

1) Dischargers or the Third-Party Group may request an extension of a deadline in this Order by submitting a Request for Extension to the Executive Officer 60 days prior to the deadline. The request shall include an explanation of failure to meet deadline and a proposed time schedule to come into compliance with this Order.

3. Enforcement

1) Dischargers, regardless of enrollment pathway, and any non-Discharger owner or operator, bears ultimate responsibility for complying with this Order. The Regional Water Board reserves the right to take any enforcement action authorized by law. Accordingly, failure to comply with any provisions of this Order may subject Dischargers to enforcement action. Such actions include, but are not limited to, the assessment of administrative civil liability pursuant to Water Code sections 13323, 13268, and 13350, a Time Schedule Order issued pursuant to Water Code section 13300 or 13308, issuance of a Cease-and-Desist Order pursuant to Water Code section 13301, Cleanup and Abatement Order pursuant to Water Code section 13304 or referral to the California Attorney General for recovery of judicial civil liability. Dischargers shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment.

2) For Third-Party Group(s), failure to comply with the applicable terms and conditions of this Order or the Third-Party Program requirements in Attachment C may result in revocation of approval to act as a Third-Party Group or any other remedy provided by law. Affected Dischargers would be required to join an approved Third-Party Group, meet requirements for Dischargers not represented by a Third-Party Group, or obtain coverage under other applicable general or individual WDRs.

4. Inspection and Entry

1) Consistent with Water Code section 13267, subdivision (c), Dischargers and Third-Party Group(s) shall allow the Regional Water Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

a) Enter the premises regulated by this Order, or the place where records are kept under the conditions of this Order,

b) Have access to and copy records kept under the conditions of this Order,

c) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d) Sample or monitor for the purpose of ensuring compliance with this Order, or as otherwise authorized by the Water Code, any substances or parameters at locations regulated under this Order.

5. Records Retention

1) Dischargers and Third-Party Groups, as appropriate, shall retain copies of all reports required by this Order and the associated MRP. Records shall be maintained for a minimum of ten years from the date of the sample, measurement, report, or application. Records may be maintained electronically, and the Third-Party Group must store backup files in a secure, offsite location managed by an independent third-party applicant. This period may be extended during the course of any unresolved litigation or when requested by the Regional Water Board's Executive Officer.

2) Dischargers and Third-Party Groups shall provide copies of any or all records when requested by Regional Water Board staff. Electronic submittals are acceptable.

6. Electronic Reporting

1) Dischargers and Third-Party Group(s), as appropriate, shall the submit reports and information required for Regional Water Board Executive Officer approval under this Order in an electronic format[64] via email to NorthCoast@Waterboards.ca.gov.

7. Claims for Exemption from Public Disclosure

1) If the Third-Party Group and/or a Discharger asserts that all or a portion of a report submitted pursuant to this Order is subject to an exemption from public disclosure (e.g., due to proprietary or trade secret information), the Third-Party Group and/or Discharger must provide an explanation of how those portions of the reports are exempt from public disclosure. The Third-Party Group and/or Discharger must clearly indicate on the cover of the report (typically an electronic submittal) that all or a portion of the report is exempt from public disclosure, submit a complete report

[64] Guidance for electronic submittal (https://www.waterboards.ca.gov/northcoast/publications_and_forms/available_documents/pdf/2014/ECM_Letter-Guidelines.pdf).

with those portions that are asserted to be exempt in redacted form, submit separately (in a separate electronic file) unredacted pages (to be maintained separately by staff). Regional Water Board staff will determine whether any such report or portion of a report qualifies for an exemption from public disclosure. If staff disagrees with the asserted exemption from public disclosure, staff will notify the Discharger prior to making such report or portions of such report available for public inspection.

8. Signature and Certification

1) All documents and reports requested herein shall be signed and dated by a duly authorized representative and shall contain a statement by the Discharger, or as appropriate by an authorized representative of the Discharger (e.g., Third-Party representative), certifying under penalty of perjury under the laws of the State of California, that the report is true, complete, and accurate. The document and/or report shall be submitted under the title: "General Waste Discharge Requirements for Commercial Vineyards."

9. Violation of Law and Property Rights

1) This Order does not authorize violation of any federal, state, or local laws or regulations.

2) This Order does not convey property rights of any sort, or exclusive privileges, nor does it authorize injury to private property or invasion of personal rights.

10. Modification, Revocation, Termination

1) This Order may be modified, revoked and reissued, or terminated. The filing of a request by a Discharger for an Order modification, rescission, or reissuance, or a Discharger's notification of planned changes or anticipated noncompliance, does not stay any Order condition. Causes for modification include, but are not limited to, the violation of any term or condition contained in this Order, a material change in the character, location, or volume of discharge, a change in land application plans, or the adoption of new regulations by the State Water Board, Regional Water Board (including revisions to the Basin Plan), or federal government.

2) Any person aggrieved by this Regional Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. The State Water Board must receive the petition by 5:00 p.m. on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the statutes and regulations applicable to filing petitions are available on the State Water Board's website and can be provided upon request.

III. Certification

I, Valerie Quinto, Executive Officer do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California North Coast Regional Water Quality Control Board, on Date xx 202x.

Valerie Quinto
Executive Officer
California Water Quality Control Board,
North Coast Region

Appendix I: Acronyms and Definitions
Appendix II: Figures
Attachment A: Monitoring and Reporting Program for Dischargers Enrolled Individually
Attachment B: Monitoring and Reporting Program for Dischargers Enrolled in a Third-Party Group
Attachment C: Third-Party Group Requirements
Attachment D: California Environmental Quality Act Mitigation Measures
Attachment E: Templates

Appendix I: Acronyms and Definitions

I. Acronyms and Abbreviations

Acronym/Abbreviation	Term
Antidegradation Policy	State Water Board Resolution 68-16, the Statement of Policy with Respect to Maintaining High Quality Waters in California
Basin Plan	Water Quality Control Plan for the North Coast Basin
BPTC	Best practicable treatment or control
CalFIRE	California Department of Forestry and Fire Protection
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDPR	California Department of Pesticide Regulation
CDPH	California Department of Public Health
CEDEN	California Environmental Data Exchange Network
CEQA	California Environmental Quality Act
COLD	Cold Freshwater Habitat Beneficial Use
CN	Nitrogen Removal Coefficient
CSDS	Controllable Sediment Discharge Sources
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DDW	State Water Board, Division of Drinking Water
DWR	Department of Water Resources
EIR	Environmental Impact Report
ESJ Order	Eastern San Joaquin Order (State Board Order WQ 2018-0002).
ELAP	Environmental Laboratory Accreditation Program

Acronym/Abbreviation	Term
Enforcement Policy	State Water Board Water Quality Enforcement Policy
eNOI	Electronic Notice of Intent
GPS	Global Positioning System
GWP	Groundwater Protection (see GWP Formula, GWP Values, GWP Targets)
HUC	Hydrologic Unit Code
ILRP	Irrigated Lands Regulatory Program
INMP	Irrigation and Nitrogen Management Plan
IPM	Integrated Pest Management
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/L	Milligrams per Liter
MRP	Monitoring and Reporting Program
NCRWQCB	North Coast Regional Water Quality Control Board
Nitrogen AR	Nitrogen Applied and Removed
NOA	Notice of Applicability
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NPS	nonpoint source
NPS Policy	State Water Board Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program
NRCS	Natural Resource Conservation Service
NTU	Nephelometric Turbidity Units

Acronym/Abbreviation	Term
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
QAPP	Quality Assurance Project Plan
Regional Water Board	North Coast Regional Water Quality Control Board
RFP	Request for Proposal
ROWD	Report of Waste Discharge
Sediment TMDL Policy	TMDL Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region
SGMA	Sustainable Groundwater Management Act
State Water Board	State Water Resources Control Board
SWAMP	Surface Water Ambient Monitoring Program
Temperature Policy	Implementation of the Water Quality Objectives for Temperature
Trend Monitoring Report	Water Quality Trend Monitoring Report
TMDL	Total Maximum Daily Load
TSO	Time Schedule Order
µg/L	Micrograms per Liter
UCCE	University of California Cooperative Extension
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
Water Code	California Water Code
WDRs	Waste Discharge Requirements
WBD	Watershed Boundary Dataset
WQMP	Water Quality Management Plan

II. Definitions

The following definitions apply to Order No. R1-2023-00XX and its associated attachments, including the MRP. The terms are arranged in alphabetical order. All other terms not explicitly defined here for the purposes of this Order, the Additional Findings and Regulatory Considerations, and the MRP have the same definitions as defined by Water Code Division 7 or are explained within the Order or MRP documents.

Abandoned Well. A well is considered “abandoned” when it has been destroyed in accordance with local and state well standards. An abandoned well is not synonymous with an “inactive well” (see also Inactive Well).

Active Well. A water well that is in operation/use.

Adaptive Management. The iterative process of modifying existing management practices or incorporating new scientific and programmatic information into the implementation of management practices to ensure the goals of the Order are achieved.

Agricultural Drainage Structure. Features that collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat, or filter stormwater runoff, including detention and retention basins, overland flow paths, pipes, channels, and the inlets and outlets to these features. These can include vineyard tile drains and similar subsurface drainage structures. They do not include drainage alteration for private roads and driveways, dams, reservoirs, lakes, ponds, and structures. These features may also be classified as Class IV watercourses that do not support native aquatic species and are man-made, provide established domestic, agricultural, hydroelectric supply, or other beneficial use.

All-Season Road. An agricultural road that is part of the permanent road network and is designed for year-round use. These roads have a surface that is suitable for maintaining a stable operating surface throughout the year.

Antidegradation. The State Water Board established a policy to maintain high quality waters of the State - Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California." Resolution No. 68-16 requires existing high-quality water to be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of water, and will not result in water quality less than that prescribed in the policies. When authorizing the discharge of waste into waters of the state, Regional Water Boards are required to comply with Resolution No. 68-16. Permits issued by the Regional Water Board must result in the best practicable treatment or control of the discharge necessary to assure pollution or nuisance will not occur and maintain the highest water quality consistent with maximum benefit to the people of the state. Resolution No. 68-16 has been approved by the USEPA to be consistent with the federal antidegradation policy (40 CFR 131.12).

Appurtenant. Belonging to, pertinent to, or used for the vineyard operation.

Appurtenant Agricultural Road. An agricultural road used for vineyard operations which connects or is used to access vineyard blocks under the ownership or control of the vineyard landowner or operator.

Authorized Agent. An authorized agent is an individual, agency, or entity who has been given the power to act on behalf of another individual, agency, or entity (such as a farm or operation).

Authorized Representative. An individual, agency, or entity who acts on behalf of another individual, agency, or entity (such as an approved Third-Party program staff, Discharger, or consultant retained by an approved Third-Party program acting on behalf of an individual grower or the Regional Water Board).

Basin Plan. The Basin Plan is the North Coast Region's Water Quality Control Plan. The Basin Plan describes how the quality of the surface and groundwater in the North Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan includes beneficial uses, water quality objectives, and a program of implementation.

Beneficial Uses. The Basin Plan establishes the beneficial uses to be protected in the North Coast Region. Beneficial uses for surface water and groundwater have been identified in waterbodies within the Region: Municipal and Domestic Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Groundwater Recharge (GWR), Freshwater Replenishment (FRSH), Navigation (NAV), Hydropower Generation (POW), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), Commercial and Sport Fishing (COMM), Cold Freshwater Habitat (COLD), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), Preservation of Areas of Special Biological Significance (ASBS), Preservation of Areas of Special Rare, Threatened, or Endangered Species (RARE), Marine Habitat (MAR), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), Shellfish Harvesting (SHELL), Estuarine Habitat (EST), Aquaculture (AQUA), Native American Culture (CUL), Flood Peak Attenuation/Flood Water Storage (FLD), Wetland Habitat (WET), Water Quality Enhancement (WQE), Subsistence Fishing (FISH), Inland Saline Water Habitat (SAL).

Commercial Vineyard. Land planted in winegrapes including vineyard avenues and appurtenant agricultural roads/structures that has one or more of the following characteristics: (1) The landowner or operator holds a current Operator Identification Number/Permit Number for pesticide use reporting; (2) The crop and/or its product is sold, including but not limited to (a) an industry cooperative, (b) harvest crew/company, or (c) a direct marketing location, such as Certified Farmers Markets; or (3) the federal Department of Treasury Internal Revenue Service form 1040 Schedule F Profit or Loss from Farming is used to file federal taxes.

Concentration. The relative amount of a substance mixed with another substance. An example is 5 mg/L of nitrogen in water or 5 ppm (parts per million).

Controllable Sediment Discharge Sources (CSDS). Areas discharging or having the potential to discharge sediment to waters of the state in violation of water quality standards or other requirements of this Order caused or affected by human activity and may feasibly and reasonably respond to management practices.

Cover Crop. (See Ground Cover).

Discharge. A release of a waste to waters of the state, either directly to surface waters or through percolation to groundwater. Wastes from irrigated agriculture include but are not limited to earthen materials (soil, silt, sand, clay, and rock), inorganic materials (metals, plastics, salts, boron, selenium, potassium, nitrogen, phosphorus, etc.) and organic materials such as pesticides. Discharges from commercial vineyards regulated by this Order include discharges to surface water and groundwater, through mechanisms such as stormwater runoff flowing from irrigated lands, stormwater runoff conveyed in agricultural drainage structures, and runoff resulting from frost control or operational spills. These discharges can contain wastes that could affect the quality of waters of the state and impair beneficial uses.

Discharger. The owner and/or operator of the commercial vineyard that discharges or has the potential to discharge waste that could directly or indirectly reach waters of the State and affect the quality of any surface water or groundwater. See also Enrollee, Landowner, Operator, Permittee, Responsible Party.

Discharge Point. A discharge point is defined as a location where surface water discharges, which are in hydrologic connection to off-farm surface waters, leave the Discharger's property. A discharge point is any hydrologically connected discharge that is not an agricultural drainage structure as defined above.

Disturbance. When natural conditions have been modified in a way that may result in waste discharge to waters of the state from the site. Disturbed areas are where natural plant growth has been removed, whether by physical, animal, or chemical means, or natural grade has been modified for any purpose. Disturbance includes all activities whatsoever associated with developing or modifying land for agricultural related activities or access. Disturbance activities include, but are not limited to, construction of roads, buildings, water storage areas; excavation, grading, and site clearing. Disturbance includes crop areas, storage areas where soil or chemicals (e.g., pesticides, fertilizers, compost, or biosolids) are located.

Drinking Water Supply Well. Any groundwater well that is connected to a residence, workshop, or place of business that may be used for human consumption, cooking, or sanitary purposes that is located within the enrolled Assessor Parcel Number (APN). This includes all domestic wells located within the enrolled APN, not limited to the leased property or within the ranch boundary. This definition includes "dual-use" wells

that are used for both irrigation and domestic purposes. The State Water Resources Control Board (State Water Board), Groundwater Ambient Monitoring and Assessment (GAMA) Program defines an individual well serving a single residential connection as a "private domestic well." For the purposes of this Order, a "private domestic well" is a Drinking Water Supply Well if it is located on the enrolled parcel and there are drinking water users of that well.

Edge-of-Field. Edge of the Farm Area producing crops including the vineyard avenues. Point in land where the surface water drains out of the Farm Area producing areas. See also Discharge Point and Agricultural Drainage Structure.

Enrollee. A Discharger enrolled in the Vineyard Order. See also Discharger, Landowner, Operator, Permittee, and Responsible Party.

Ephemeral Stream. A Class III watercourse. A body of flowing water that contains water for only part of the year, but more than just after rainstorms and as snowmelt as shown in the NHD shapefile. In the absence of diversion, water is flowing less than three months during a typical year and the stream does not support riparian vegetation or aquatic life. Ephemeral watercourses typically have water flowing for a short duration after precipitation events or snowmelt and show evidence of being capable of sediment transport.

Erosion. The gradual destruction of land surface by wind or water, intensified by land-clearing practices related to farming, residential or industrial development, road building, or logging.

Exceedance. A reading using a field instrument or a detection by a California State-certified analytical laboratory where the detected result is above an applicable water quality standard for the parameter or constituent.

Farm Area. The planted area and appurtenant structures, vineyard avenues, maintenance areas, mixing and loading sites, and appurtenant storage yards on a commercial vineyard.

Field. A term to describe aggregation of planted areas for the purposes of reporting. Where this Order requires reporting by field, Dischargers may report data for a portion of a field or for multiple fields provided that the reported area has (1) the same fertilizer inputs, (2) the same irrigation management, and (3) the same management practices. Fields can be defined by the Discharger in a manner consistent with the farming operation (e.g., vineyard blocks).

Ground Cover. Ground cover refers to the following practices: (1) Cover crop can be grasses, legumes, forbs, or other herbaceous plants established in vineyards and orchards to provide seasonal or year-round ground cover for conservation purposes. (2) Annual cover crops are permanent vegetation that do not need to be re-seeded every year (3) Perennial cover crops are crops are planted in late summer to early Fall of each

year (4) Low-till crops are grown with practices that limit the soil-disturbing activities used to grow and harvest crops in systems where the field surface is tilled prior to planting (5) No-till crops are planted and grown in narrow slots or tilled strips established in the untilled seedbed of the previous crop. This practice includes maintaining most of the crop residue on the soil surface throughout the year, commonly referred to as no till. The common characteristic of this practice is that the only tillage performed is a very narrow strip prepared by coulters, sweeps, or similar devices attached to the front of the planter. (6) Conservation cover is establishing and maintaining perennial vegetated cover to protect soil and water resources on lands needing permanent protective cover that will not be used for forage production. (7) Effective soil cover includes mulching, straw mulching, plant residues or other suitable materials produced off site to the land surface. Mulching is used on bare, exposed soil surfaces that are deemed to be potential critical erosion areas. In most cases, mulch will consist of grain straw residue, but may include wood chips, leaves, composted yard waste, etc. (NRCS Conservation Practice Standards 2016[65]).

Ground Disturbing Management Practices. These measures could include but are not limited to practices to prevent erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls; minimizing soil disturbance areas; implementing practices to maintain water quality, including silt fences, stabilized construction entrances, and storm drain inlet protection; limiting construction to dry periods; and revegetating disturbed areas.

Groundwater. The supply of water found beneath the Earth's surface, usually in aquifers which can supply wells and springs.

Groundwater Protection Formula, Values and Targets. The Groundwater Protection (GWP) Formula generates GWP Values, expressed as either nitrate-N loading numbers or concentrations of nitrate in water (e.g., mg/L), reflecting the influence of total applied nitrogen, total removed nitrogen, recharge conditions, and other relevant and scientifically supported variables that influence the potential average concentration of nitrate in water expected to reach groundwater in a given township over a given time period. GWP Values are calculated based on reported INMP data and reflect discharge estimates from the bottom of the root-zone. GWP Targets considers GWP Values to establish the nitrogen loading rate necessary to comply with the Antidegradation Policy and Basin Plan.

High-Water Mark. That line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the

[65] Natural Resources Conservation Service: Conservation Practice Standards Informationv (https://www.nrcs.usda.gov/getting-assistance/conservation-practices).

characteristics of the surrounding areas.

High Vulnerability Groundwater Basin. Defined in the ESJ Order as areas "where known groundwater quality impacts exist for which irrigated agricultural operations are a potential contributor or where conditions make groundwater more vulnerable to impacts from irrigated agricultural activities." For the purposes of this Order, 'high vulnerability areas' are defined as the priority groundwater basins having a relatively high threat from salts and nutrients and would benefit from salt and nutrient management planning as defined in Groundwater Basin Evaluation and Prioritization Resolution No. R1-2021-0006.

HUC-8, HUC-10, and HUC-12 Watersheds. Derived from Watershed Boundary Dataset (WBD) maps developed by the U.S. Department of Agriculture, Natural Resources Conservation Service to define and compare true watersheds and hydrologic units and their applications for watershed assessment. The WBD maps the full areal extent of surface water drainage for the United States, using a hierarchal system of nesting hydrologic units at various scales, each with an assigned hydrologic unit code (HUC). HUC-8 maps the subbasin level, analogous to medium-sized river basins. HUC-12 is a more local sub-watershed level that captures tributary systems.

Hydrologically Connected. Farm areas with a continuous surface flow path to a natural stream channel during a storm runoff event (also referred to as hydrologic connectivity). Connectivity usually occurs through agricultural drainage structures, drainage inlets, road ditches, gullies, and channels.

Hydrologically-Connected Undesignated Channel. Channels not part of the NHD dataset that are hydrologically-connected to off-farm surface waters. Includes above-ground agricultural drainage structures.

Hydrologic Unit. A hydrologic unit is a drainage area delineated to nest in a multi-level, hierarchical drainage system. Its boundaries are defined by hydrographic and topographic criteria that delineate an area of land upstream from a specific point on a river, stream, or similar surface water. Watersheds in the United States were delineated by the U.S. Geological Survey using a national standard hierarchical system based on surface hydrologic features and are classified into four types of hydrologic units: first-field (region), second-field (subregion), third-field (accounting unit), and fourth-field (cataloguing unit), a fifth field of classification (watershed) and sixth field (sub-watershed).

Inactive Well. A well is considered "inactive" when it has been taken out of service but has not been destroyed (see Abandoned Well definition). An inactive well must not allow impairment of water quality within the well and/or groundwater encountered by the well.

Intermittent Stream. A Class II watercourse. A body of flowing water that contains water only during or after a local rainstorm or heavy snowmelt as shown in the NHD

shapefile. In the absence of diversions, water is flowing for three to nine months during a typical year, provides aquatic habitat for non-fish aquatic species, fish always or seasonally present within 1,000 feet downstream, and/or water is flowing less than three months during a typical year and the stream supports riparian vegetation.

Invasive Species. Organisms (plants, animals, or microbes) that are not native to an environment and that, once introduced establish, quickly reproduce and spread, and cause harm to the environment, economy, or human health. U.S. Department of Agriculture, Natural Resource Conservation Service website: EnviroAtlas Hydrologic Unit Codes Fact Sheet[66]. For guidance on identifying species of concern, see the Cal-IPC website: Plants A to Z[67].

Irrigation. Applying water to land areas to supply the water and nutrient needs of plants.

Irrigation Management Practices. Management practices designed to improve irrigation efficiency and reduce the amount of irrigation return flow or tailwater, and associated degradation or pollution of surface and groundwater caused by discharges of waste associated with irrigated lands.

Irrigation and Nitrogen Management Planning Specialist. A certified irrigation and nitrogen planning specialist is a Certified Crop Advisor (CCA) who has completed the California Nitrogen Management exam through The California Department of Food and Agriculture (CDFA), the University of California – Davis, the American Society of Agronomy's (ASA) International Certified Crop Adviser (ICCA) Third-Party Group and/or the CCA – Western Region (WR) Board and takes the required continuing education credits. Dischargers may self-certify their INMP if they take the CDFA Irrigation and Nitrogen Management Training for Grower Self-Certification, pass the Irrigation and Nitrogen Management Training and Exam and maintain the certification through continuing education. More information can be found at CDFA FREP Training (https://www.cdfa.ca.gov/is/ffldrs/frep/training.html).

Lake and Streambed Alteration Agreement. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1). Substantially divert or obstruct the natural flow of any river, stream or lake; (2). Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3). Deposit debris, waste or other materials that could pass into any river, stream or lake. "Any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a

[66] See the EnviroAtlas Hydrologic Unit Codes Fact Sheet (https://enviroatlas.epa.gov/enviroatlas/datafactsheets/pdf/Supplemental/HUC.pdf).
[67] See the Cal-IPC website: Plants A to Z (https://www.cal-ipc.org/plants/profiles/).

body of water.

Landowner. An individual or entity who has legal ownership of a parcel(s) of land. See also Discharger, Enrollee, Operator, Permittee, and Responsible Party.

Leaching. In agriculture, leaching is the loss of water-soluble plant nutrients from the soil, due to the percolation of rain and irrigation water. Leaching may also refer to the salinity control practice of applying a small amount of excess irrigation to drain down salts from the root soil profile to avoid salts from building up in the soil. In the natural environment leaching contributes to groundwater contamination. As water from rain, flooding, or other sources seeps into the ground, it can dissolve chemicals and carry them into the underground water supply.

Load. The mass of a substance discharged over a given amount of time, for example 10 mg/day or 5 kg/day.

Method Detection Limit. The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in accordance with USEPA Definition and Procedure for the Determination of the Method Detection Limit, Revision 2. The laboratory establishes the MDL values based on the analytical test method and the types of calibrated laboratory equipment that are used.

Monitoring. Observing and checking a feature or factor over time to determine compliance with this Order or other regulatory requirements. Monitoring in this Order includes but is not limited to surface water or groundwater sampling and analysis to evaluate water quality in connection with agricultural activities, and inspecting operations, management practice implementation and effectiveness, maintenance of on-site records, and management practice reporting.

Nitrogen Applied. Total nitrogen applied includes nitrogen in any product, form, or concentration including, but not limited to, organic and inorganic fertilizers, slow-release products, compost, compost teas, manure, extracts, nitrogen present in the soil, and nitrate in irrigation water; it is reported in units of pounds of nitrogen per crop, per acre for each commercial vineyard or nitrate loading risk unit.

Nitrogen Removed. Nitrogen Removed includes all nitrogen taken from the field in harvested or other materials. Other materials may include wheat straw, orchard prunings, almond hulls, etc. In the case of perennial crops, Nitrogen Removed also includes the nitrogen annually sequestered in the permanent wood.

Nitrogen-Removal Coefficient (CN). Percent of nitrogen content in the dry matter of plant tissue. The CN multiplied by the weight of plant material removed from the fields, can be used to estimate the nitrogen removed from the marketable portion of a crop.

Nonpoint Source (NPS) Pollution. The Basin Plan states that nonpoint sources of

water pollution are generally defined as sources which are diffuse (spread out over a large area). Nonpoint sources of pollution are not subject to NPDES permitting. The wastes are generally carried off the land by runoff. Common nonpoint sources of pollution are activities associated with agriculture, timber harvest, certain mining, dams, and saltwater intrusion.

Nitrogen Management Practices. Management practices designed to reduce the nitrogen loss from agricultural lands, which occur through edge-of-field runoff or leaching from the root zone.

Offsite Sources. Discharges that originate from an area not located on the Discharger's enrolled parcel and flow onto the Farm Area.

Operator. Person responsible for or otherwise directing farming operations in decisions that may result in a discharge of waste to surface water or groundwater, including, but not limited to, a farm/ranch manager, lessee, or sub- lessee. The operator is responsible for ensuring compliance with this Order and for any discharge of waste occurring on or from the operation. See also Discharger, Enrollee, Landowner, Permittee, and Responsible Party.

Operation. A distinct farming business, generally characterized by the form of business organization, such as a sole proprietorship, partnership, corporation, and/or cooperative. A farming operation may be associated with one-to-many individual farms/ranches.

Perennial Stream. A Class I watercourse. In the absence of diversions, water is flowing for more than nine months during a typical year, fish always or seasonally present onsite or includes habitat to sustain fish migration and spawning, and/or a spring, an area where there is concentrated discharge of ground water that flows at the ground surface (a spring may flow any part of the year and does not have a defined bed and banks).

Permittee. A Discharger enrolled in the Vineyard Order. See also Discharger, Enrollee, Operator, Landowner, and Responsible Party.

Pesticide. Any substance intended to control, destroy, repel, or otherwise mitigate a pest. The term pesticide is inclusive of all pest and disease management products, including insecticides, herbicides, fungicides, nematicides, rodenticides, algicides, etc.

Planted Area. The area of the Farm Area that is planted in grapevines. Planted area does not include appurtenant structures, agricultural roads, or vineyard avenues.

Pollutant. The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water, including dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock,

sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.

Pollution. Any alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (1) the waters for beneficial uses, (2) facilities which serve these beneficial uses. Pollution may include contamination.

Quality Assurance Project Plan. A Quality Assurance Project Plan (QAPP) integrates all technical and quality aspects of a project, including planning, implementation, and assessment.

Qualified Professional. An individual licensed in California under the Professional Engineer Act (e.g., Professional Engineer), Geologist and Geophysicist Act (e.g., Professional Geologist, Certified Engineering Geologist, or Certified Hydrogeologist), and Land Surveyors' Act (e.g., Professional Land Surveyor); a California Registered Professional Forester (RPF); or a Qualified Storm Water Pollution Prevention Plan (SWPPP) Developer (QSD), a certified soil scientist registered through the American Society of Agronomy; Certified Professional in Erosion and Sediment Control (CPSEC)™/Certified Professional in Storm Water Quality (CPSWQ)™ registered through EnviroCert International, Inc.; a or professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET). A Qualified Professional must only perform work they are qualified to complete, consistent with applicable licensing and registration restrictions, and must certify any work completed. See Business and Professions Code sections 6700-6799, 7800-7887, and 8700-8805, respectively.

Qualifying Storm Event. A Qualifying Storm Event is any weather pattern that is forecasted by the National Weather Service to have a 50 percent or greater chance of producing 0.5 inches or more precipitation on a site within a 48 hour or greater period between rain events.

Quality of the Water. The "chemical, physical, biological, bacteriological, radiological, and other properties and characteristics of water which affect its use" as defined in the California Water Code Sec. 13050(g).

Receiving Waters. Surface waters or groundwater that receive or have the potential to receive discharges of waste from irrigated lands.

Responsible Party. The landowner or operator of a commercial vineyard that discharges or has the potential to discharge waste that could directly or indirectly reach waters of the state and affect the quality of any surface water or groundwater. See also Discharger, Enrollee, Landowner, Operator, and Permittee.

Requirements of Applicable Water Quality Control Plans. Water quality objectives, prohibitions, Total Maximum Daily Load (TMDL) Implementation Plans, or other requirements contained in the Basin Plan, as adopted by the Regional Water Board and approved according to applicable law.

Riparian Vegetation. The vegetation (including dead, dying, or decaying vegetation) along a watercourse that is distinguished from other vegetation by its dependence on the combination of soil moisture and other environmental factors provided by a watercourse.

Riparian Vegetation Canopy. The more-or-less continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody species adjacent to a watercourse.

Saturated Soil Conditions. Conditions when soil and/or surface material pore spaces are filled with water to such an extent that runoff is likely to occur. Indicators of saturated soil conditions may include, but are not limited to: (1) areas of ponded water, (2) pumping of fines from the soil or road surfacing material during Timber Operations, (3) loss of bearing strength resulting in the deflection of soil or road surfaces under a load, such as the creation of wheel ruts, (4) spinning or churning of wheels or tracks that produces a wet slurry, or (5) inadequate traction without blading wet soil or surfacing materials.

Seasonal Road. An agricultural road that is part of the permanent road network that is not designed for year-round use. These roads have a surface that is suitable for maintaining a stable operating surface during the period of use. Vineyard avenues are seasonal roads.

Sediment Basin. A constructed basin to capture and detain surface runoff for a sufficient length of time to allow sediment to settle.

Sediment and Erosion Control Practices. Practices used to prevent and reduce the amount of soil and sediment entering surface water in order to protect or improve water quality.

Site-Specific Potential Effective Shade. The shade equivalent to that provided by topography and potential vegetation conditions at a site. Shade controls that are effective at correcting temperature impairments also operate to prevent impairments and provide other water quality protections such as bank stability and filtering sediment and other waste discharges.

Source of Drinking Water. Any water designated as municipal or domestic supply (MUN) beneficial use in a Regional Water Board Basin Plan and/or as defined in State Water Board Resolution No. 88-63.

Stormwater. Stormwater runoff, snow melt runoff, and surface runoff and drainage, as defined in 40 CFR 122.26(b)(13).

Stormwater Runoff. Precipitation water in excess of what can infiltrate the soil surface and be stored in small surface depressions.

Streamside Area. The area between the waterside edge of riparian vegetation canopy

(or the nearest edge of the high-water mark if riparian vegetation canopy is not present) and the field side edge of a vegetated buffer.

Surface Runoff. Precipitation, snow melt, or irrigation water in excess of what can infiltrate the soil surface and be stored in small surface depressions, a major transporter of nonpoint source wastes in rivers, streams, and lakes.

Tailwater. Runoff of irrigation water from the lower end of an irrigated field. See also Irrigation Runoff or Return Flow.

Third-Party Group. An organization or entity that is approved to represent Dischargers under this Order and is obligated to fulfill the following responsibilities: (1) collect fees from Dischargers and submit payments to the State Water Resources Control Board; (2) manage communications between Dischargers and the Regional Water Board; (3) provide outreach and education resources for Dischargers; and (4) fulfill monitoring and reporting requirements including but not limited to submitting monitoring workplans and necessary technical material, conducting regional surface water and groundwater monitoring, and connecting Dischargers to resources that can assist the preparation and implementation of Water Quality Management Plans.

Third-Party Program. The set of requirements under this Order that a Third-Party Group is allowed to perform on behalf of the Dischargers enrolled in that Third-Party Group.

Total Maximum Daily Load (TMDL). The calculation of the maximum amount of a particular material that a waterbody can assimilate on a regular basis and still support beneficial uses designated for that waterbody.

Trend. A general direction in which something is developing or changing. See also Water Quality Trend.

Unstable Area. Areas showing evidence of mass downslope movement such as debris flow, landslides, rockfall, and hummock hill slopes with undrained depressions upslope. Examples are landforms exhibiting slip surfaces roughly parallel to the hillside; landslide scars and curving debris ridges; fences, trees, and telephone poles that appear tilted; and tree trunks that bend uniformly as they enter the ground. Active sand dunes are unstable landforms.

Vegetated Buffer. A narrow, permanent strip of dense perennial vegetation (including riparian vegetation) where no crops are grown and which is established parallel to the contours of and perpendicular to the dominant slope of the land applications area for the purposes of slowing water runoff, enhancing water infiltration, trapping pollutants bound to sediment and minimizing the risk of any potential nutrients or pollutants from reaching surface waters.

Vineyard Avenue. A seasonal road around or through a vineyard block, or an area at

the end of a vine row where vehicles and equipment can turn around.

Waste. “Includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal” as defined in the California Water Code Sec. 13050(d). “Waste” includes irrigation return flows and drainage water from agricultural operations containing materials not present prior to use. Waste from irrigated agriculture includes earthen materials (such as soil, silt, sand, clay, rock), inorganic materials (such as metals, salts, boron, selenium, potassium, nitrogen, phosphorus), and organic materials such as pesticides.

Water Quality Control. The “regulation of any activity or factor which may affect the quality of the waters of the State and includes the prevention and correction of water pollution and nuisance” as defined in the California Water Code Sec. 13050(i). 133. Water Quality Criteria. Levels of water quality required under Sec. 303(c) of the Clean Water Act that are expected to render a body of water suitable for its designated uses. Criteria are based on specific levels of pollutants that would make the water harmful if used for drinking, swimming, farming, fish production, or industrial processes. The California Toxics Rule adopted by USEPA in April 2000, sets numeric Water Quality Criteria for non-ocean waters of California for federal priority pollutants. See also Water Quality Objectives.

Water Quality Objectives. “Limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specified area,” as defined in Sec. 13050(h) of the California Water Code. Water Quality Objectives may be either numerical or narrative and serve as Water Quality Criteria for purposes of section 303 of the Clean Water Act. 135. Water Quality Standard. Provisions of State or Federal law that consist of the beneficial designated uses or uses of a waterbody, the numeric and narrative water quality criteria that are necessary to protect the use or uses of that particular waterbody, and an antidegradation statement. Water quality standards includes water quality objectives in the Regional Water Board’s Basin Plan, water quality criteria in the California Toxics Rule and National Toxics Rule adopted by USEPA, and/or water quality objectives in other applicable State Water Board plans and policies. For groundwater with the beneficial use of municipal or domestic water supply, the applicable drinking water standards are those established by the USEPA or California DDW, whichever is more stringent. Under Sec. 303 of the Clean Water Act, each State is required to adopt water quality standards.

Water Quality Trend. A change in time of a measured chemical constituent that represents as aspect of the quality of the water (e.g., increasing, stable, or decreasing concentration of a constituent). The analysis of a water quality trend predicts the behavior of water quality parameters and overall water quality in the time domain.

Waters of the State. “Any surface water or groundwater, including saline waters, within

the boundaries of the State" as defined in the California Water Code Sec. 13050(e). "Waters of the state" includes all "waters of the U.S." Any significant accumulation of water above the ground surface, such as lakes, ponds, rivers, streams, creeks, springs, wetlands, and canals.

Winterization Period. For the purposes of this Order, the winterization period is defined as November 15th – April 1st.

Appendix II: Figures

Figure 1: Vineyards in the North Coast Region

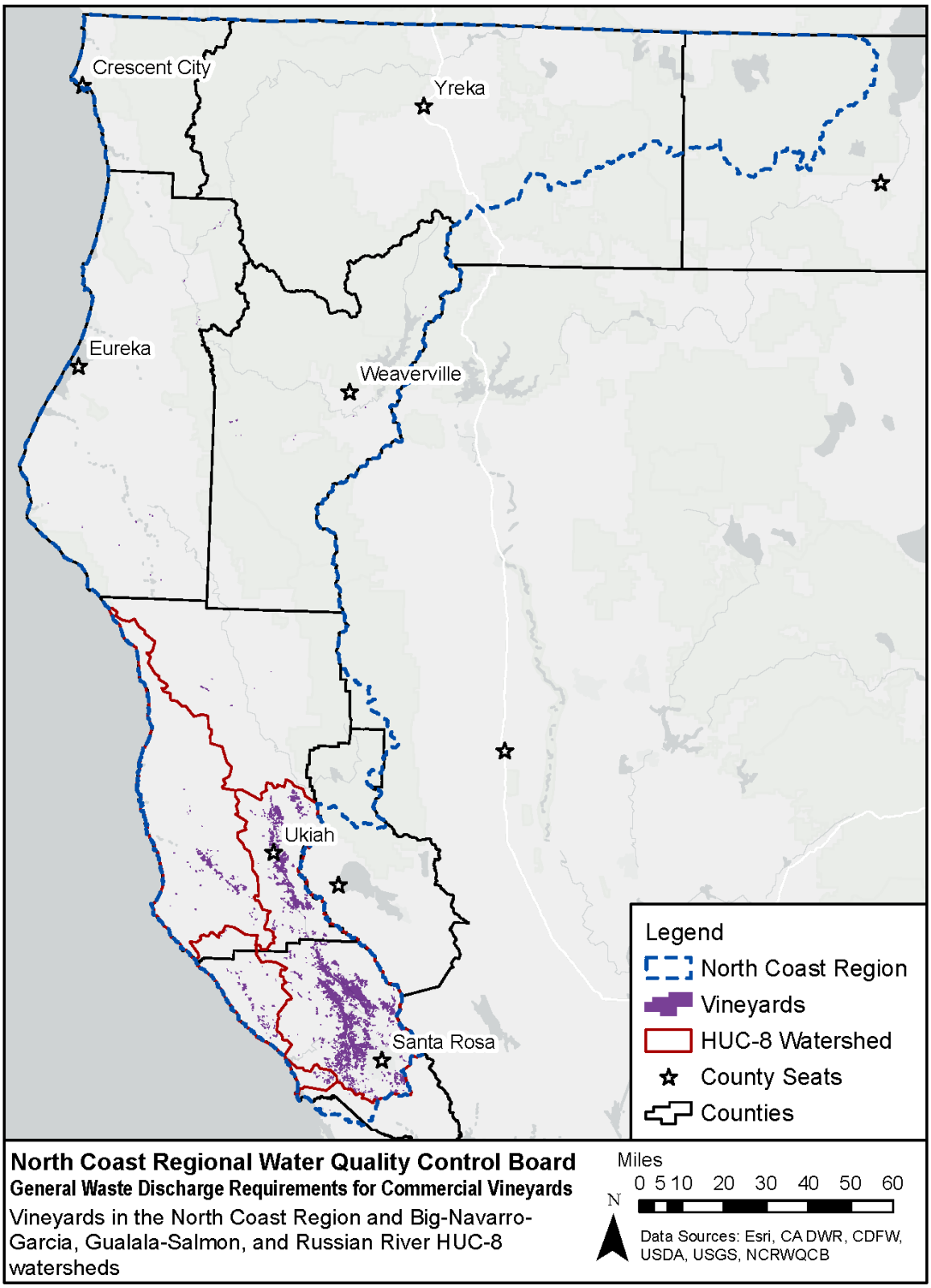


Figure 2:Coho Salmon and Winter Steelhead Distribution Ranges and Vineyard Density within Mendocino and Sonoma Counties

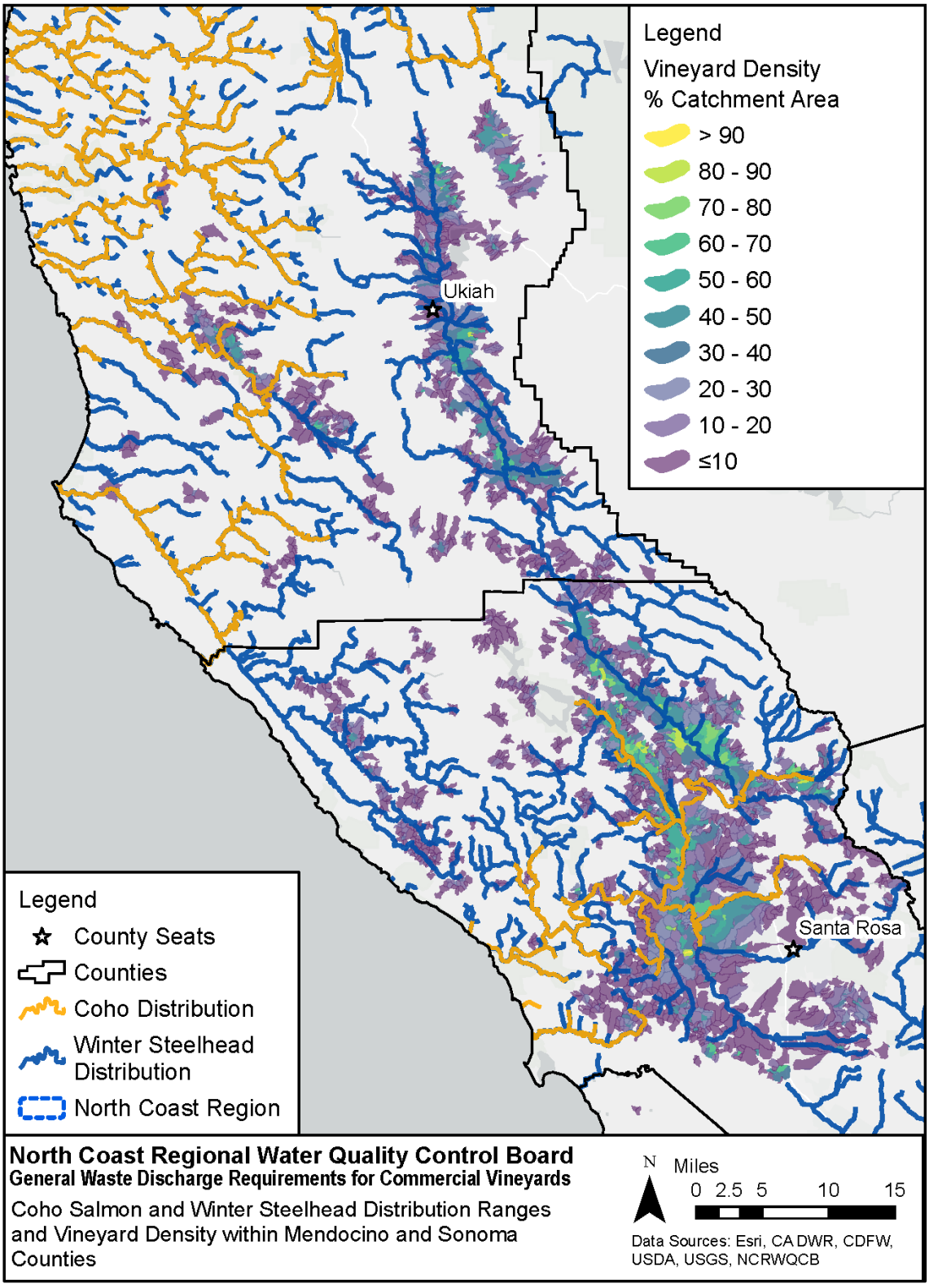


Figure 3: CDPR Pesticide Detections in Surface Water of Sonoma and Mendocino Counties (2008-2018)

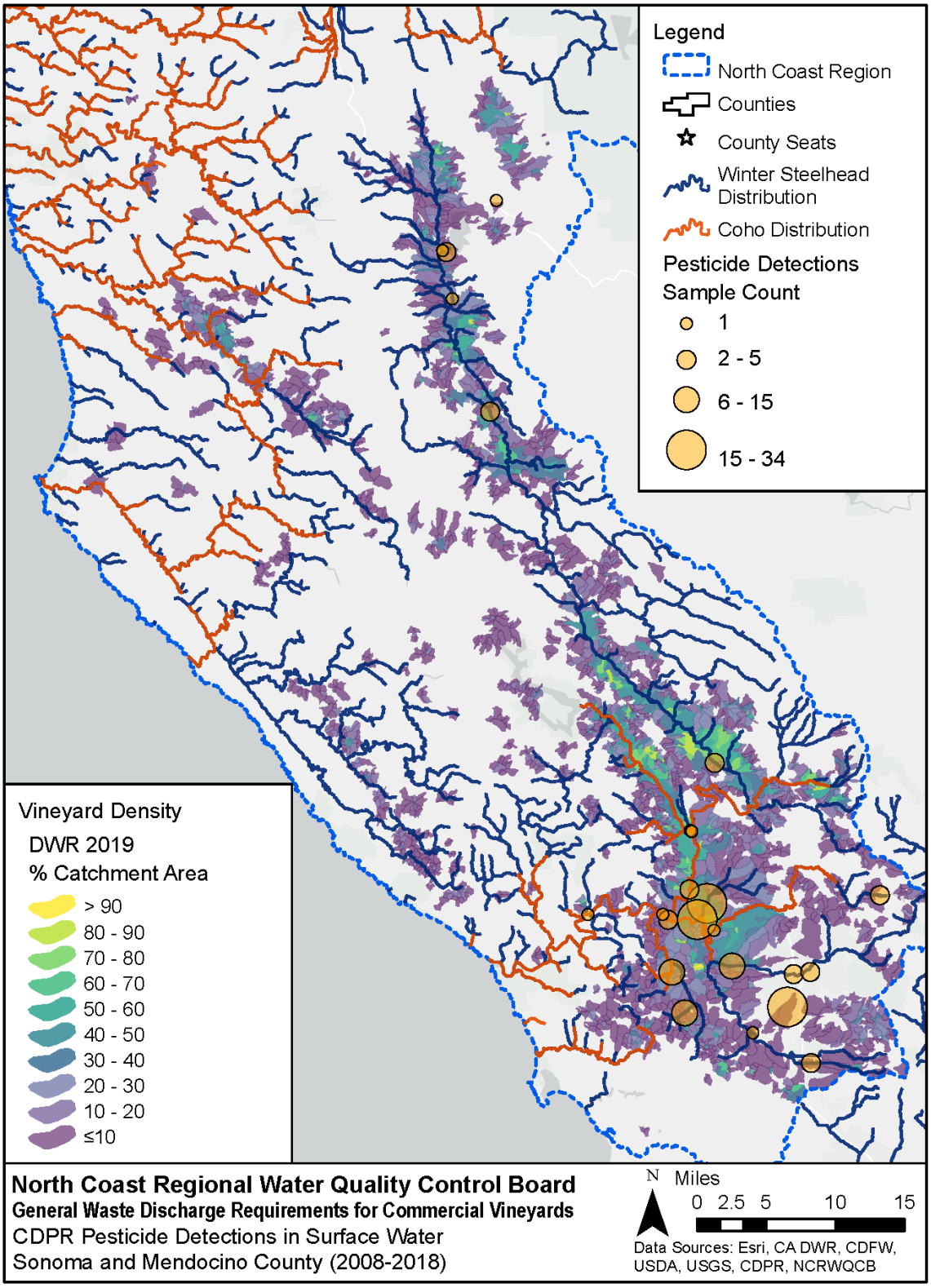


Figure 4: CDPR 6800(a) Pesticide Detections in Groundwater Wells in Sonoma and Mendocino Counties (2012-2021)

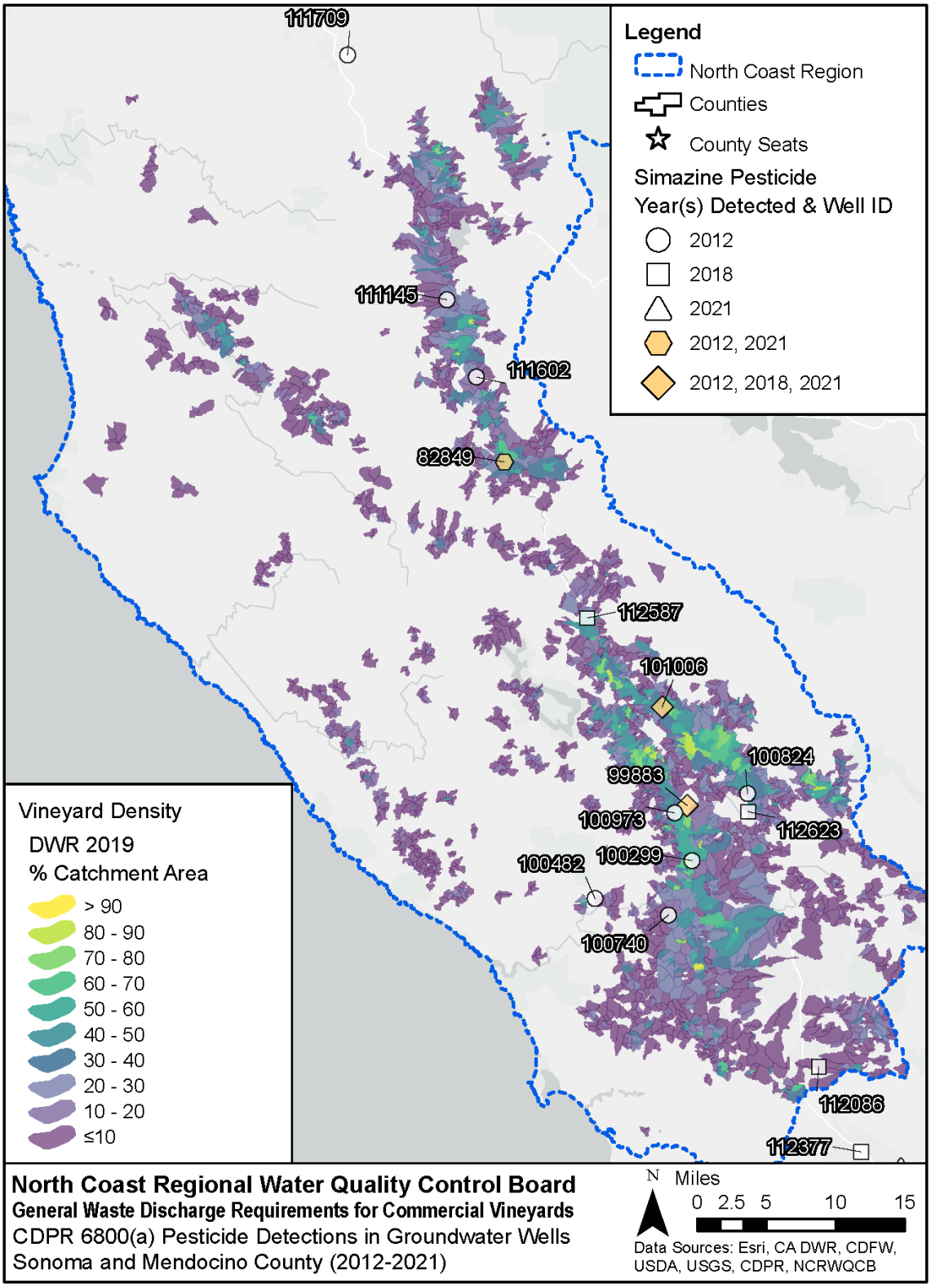
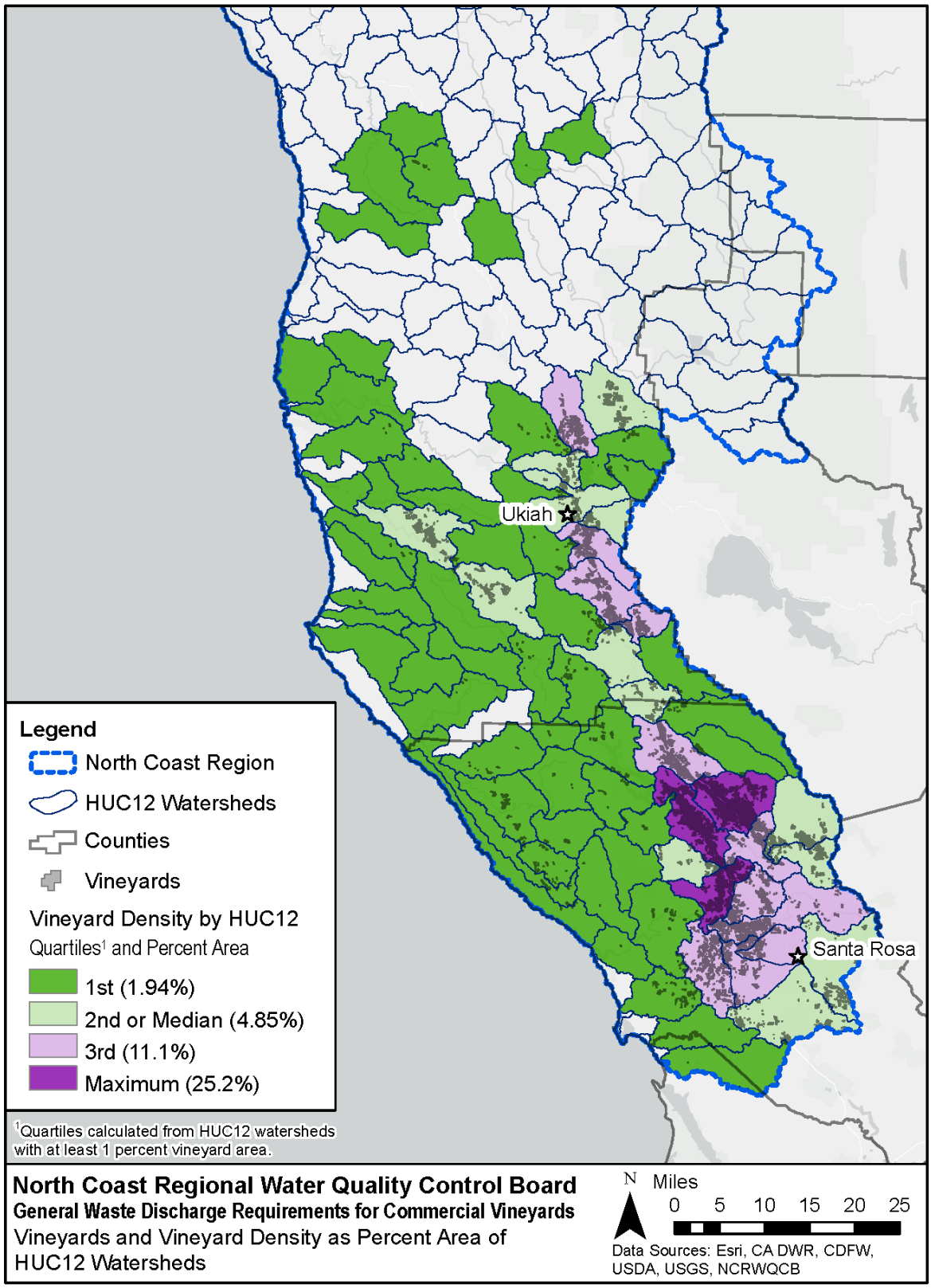


Figure 5: Vineyard and Vineyard Density as Percent Area of HUC-12 Watersheds



Attachment A: Monitoring and Reporting Program for Dischargers Enrolled Individually

I. Summary

Dischargers enrolled individually shall conduct all monitoring and reporting for all enrolled parcels on their commercial vineyard. The Monitoring and Reporting Program (MRP) consists of (1) surface and groundwater monitoring; (2) Annual Compliance Reporting and (3) Water Quality Monitoring Reporting every five years.

Dischargers shall submit a Water Quality Monitoring Workplan to the Regional Water Board's Executive Officer which describes how they will implement the water quality monitoring and reporting requirements of this Order as summarized in Table A.1a, A.1b, and A2 below:

Table A.1a: Surface Water Monitoring Master Schedule

Requirement	Frequency	Where to Report
Edge-of-Field Surface Water Quality Monitoring	Annually for turbidity; every five years for pesticides.	Annual Compliance Report and Trend Monitoring Report submitted to GeoTracker

Table A.1b: Groundwater Monitoring Master Schedule

Requirement	Frequency	Where to Report
Drinking Water Well Monitoring	Varies; see Section IV.A of this MRP	Submitted to GeoTracker.
Groundwater Trend Monitoring	Annually	Annual Compliance Report and Trend Monitoring Report submitted to GeoTracker.

Table A.2: Reporting Master Schedule

Requirement	Elements of Report	Submittal deadline and Frequency
Water Quality Monitoring Workplan	Surface and Groundwater Quality Monitoring Workplans	By **July 1, 2027**, Submit to GeoTracker.
Annual Compliance Report	Farm Evaluation, Irrigation and Nutrient Management Plan, Annual water quality monitoring results, CEQA Mitigation Measures	By **July 1, 2026**, and by July 1st annually thereafter. Note that the Annual Water Quality Monitoring results are not due until the year after the Workplan is approved.
Water Quality Trend Monitoring Report (Trend Monitoring Report)	All surface and groundwater quality monitoring results for the previous five years.	Within five years of approval of Water Quality Monitoring Workplan and every five years by July 1st thereafter.

II. Water Quality Monitoring Workplan

1) By **July 1, 2027**, a Water Quality Monitoring Workplan (Workplan) shall be submitted to the Regional Water Board's Executive Officer for review and approval.

2) The Workplan shall present proposed monitoring sites, work tasks, milestones, and method(s) used to evaluate data to comply with all requirements outlined in Section A.III (Surface Water Quality Monitoring Requirements) and Section A.IV (Groundwater Trend Monitoring Requirements) of this MRP.

3) The Workplan shall include a map and description of all required surface water monitoring points. The Workplan shall map and identify a sufficient number[68] of monitoring wells to characterize conditions and trends in groundwater quality across their enrolled parcels. The Workplan shall consider the following in well determination: (1) Soil type and saturated hydraulic conductivity of soil; (2) Existing water quality data; (3) Depth to groundwater; (4) Absence of nearby domestic/commercial wastewater disposal and/or biosolids application to avoid effects of other nitrate sources; (5) the distribution of wells within both high and low

[68] Dischargers may reference Department of Water Resources guidance document Section D (Degraded Water Quality) to determine sufficient monitoring well network for groundwater quality assessment (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).

vulnerability groundwater areas[69] in the enrolled parcels; and (6) proximity to drinking water supply wells (public and private).

4) The Workplan map shall include all enrolled parcels of the commercial vineyard and may be an aerial photograph, topographic map, LiDAR-derived shaded relief map, Google Earth image, or equivalent that depicts features at 1-inch = 50 feet or larger scale.

5) The Workplan shall include methodology(s) to: (1) evaluate trends in groundwater monitoring data, (2) evaluate pesticide concentration trends in surface water monitoring data, and (3) determine statistical increases of pesticide concentrations in surface water quality monitoring data.

6) The Workplan shall include a Quality Assurance Project Plan (QAPP) that outlines procedures used to ensure the data collected and analyzed meet requirements of this MRP. The QAPP shall be consistent with guidance provided by the State Water Resources Control Board (State Water Board) Quality Assurance/Quality Control[70].

7) By **July 1st,** five years following approval of the Workplan and every five years thereafter, a Water Quality Trend Monitoring Report (Trend Monitoring Report) that presents and analyzes all water quality monitoring results in the previous five years shall be submitted. The scope and contents of the Trend Monitoring Report are covered in Section V.A of this MRP.

III. Surface Water Quality Monitoring Requirements

The purpose of Individual surface water monitoring is to assess effectiveness of management practices to minimize and reduce waste discharges from individual commercial vineyards to surface waters. Water quality is evaluated with both field-measured parameters and laboratory analytical data.

A. General Monitoring Requirements

1) The Discharger shall monitor all hydrologically-connected storm water discharge points at the location where storm water leaves the Farm Area. The Discharger

[69] High vulnerability groundwater areas are groundwater basins designated as priority groundwater basins for salt and nitrate planning based on the 2021 North Coast Groundwater Basin Prioritization Resolution (https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2021/21_0006_Groundwater_Basin_Prioritization_Resolution.pdf). Low vulnerability groundwater areas are groundwater basins not designated as 'priority basins.' See 'high-vulnerability groundwater' in Appendix 1: Acronyms and Definitions.

[70] See the QA/QC Program (https://www.waterboards.ca.gov/water_issues/Third-Partys/quality_assurance/qapp.html).

shall sample for turbidity and for those pesticides specified in Table A.3 that the Discharger has applied on any of their enrolled commercial vineyards within two years of the sampling event. Dischargers shall comply with monitoring requirements and frequencies as summarized in Table A.2.

2) Samples shall be collected, maintained, and shipped[71] in accordance with the current version of the SWAMP Quality Assurance Plan[72].

3) Dischargers shall include annual Surface Water Monitoring results in the Annual Compliance Report as described in Section VI.B of this MRP. Turbidity results for the five years preceding the Trend Monitoring Report shall be summarized and analyzed for trends in that report as described in Section VI.A of this MRP. Results of pesticide monitoring (if applicable) shall also be included in the Trend Monitoring Report.

4) If a Discharger is unable to collect samples in any given year, due to lack of discharge or unsafe conditions, the Discharger shall include in the Annual Compliance Report a No Discharge Demonstration which includes the following: (1) photographs[73] of all agricultural drainage structures and discharge points; (2) documentation of reasons the sampling event did not occur that could include, but are not limited to weather reports, photographs of unsafe conditions, or other written explanation.

5) Dischargers are required to use the Annual Compliance Form Attachment E: Templates to submit water quality monitoring results. A Discharger may submit alternative procedures and forms for consideration but must receive written approval from the Executive Officer before using them.

6) The Discharger may request that the Executive Officer reduce turbidity monitoring frequencies if, after five consecutive years of monitoring, there are no exceedances of the turbidity benchmark and no trends of degradation that may threaten applicable Basin Plan beneficial uses. The monitoring reduction request may be granted on the condition that the Discharger annually certifies (in the Annual Compliance Report) that water quality management practices have not changed since the qualifying monitoring period on which the request is based. Dischargers shall sample at least once every five years under a reduced monitoring plan.

7) The Executive Officer may re-instate the required monitoring frequency if: (1) an

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[71] Sampling may be completed by the Discharger or designated personnel provided they have completed necessary training in accordance with the SWAMP Quality Assurance Plan.

[72] See the SWAMP Quality Assurance Plan (https://www.waterboards.ca.gov/water_issues/Third-Partys/swamp/quality_assurance.html).

[73] Photographs must be in color with a field of view that includes the monitoring point and the upstream area.

exceedance of the turbidity benchmark occurs, (2) a trend of degradation that may threaten applicable Basin Plan beneficial uses is indicated by available data, or (3) management practices change in a manner that could result in an exceedance of the turbidity benchmark or a trend of degradation.

Table A.2: Surface Water Monitoring Parameters and Frequency

Surface Water Monitoring Parameters	Units	Analysis Type	Frequency	Adaptive Management Threshold[74]
Turbidity	NTU	Field	Annually	250 NTU
Pesticides (see Table A.3)	µg/L	Laboratory	Every five years	Increasing trend in concentration of detected pesticide over five-year period.

Table A.3: Pesticides to be Monitored if applied within two years of Sampling Event.

azoxystrobin	fluxapyroxad	methoxyfenozide	simazine
boscalid	glyphosate	myclobutanil	tebuconazole
diazinon	imidacloprid	oryzalin	thiobencarb
diuron	iprodione	pendimethalin	triclopyr
fluopyram	kresoxim-methyl	propiconazole	trifloxystrobin

B. Turbidity Monitoring

1) The Discharger shall conduct monitoring during a qualifying storm event[75] within the first two hours discharge which occurs during daylight hours.

2) The Discharger shall annually monitor turbidity values in 20 percent of agricultural drainage structures and hydrologically connected discharge points[76] on each

[74] The Adaptive Management Threshold is the measured concentration of the parameter which triggers adaptive management as specified in Section III.D of this MRP.

[75] A qualifying storm event is any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.

[76] A discharge point is any hydrologically-connected discharge to surface waters that is not an agricultural drainage structure as defined above.

vineyard on a 5-year cycle[77] at all outlets that discharge from the Farm Area to surface waters. Dischargers shall analyze turbidity using a calibrated[78] turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable test methods include Standard Method 2130 or USEPA Method 180.1[79]. Results shall be recorded in Nephelometric Turbidity Units (NTU).

C. Pesticide Monitoring

1) One representative discharge point or agricultural drainage structure[80] shall be monitored once every five years for pesticides. The appropriate USEPA analytical Method shall be utilized to analyze all applicable analytes consistent with the Method Detection Limit (MDL)[81].

2) If there is a pesticide reported above its MDL, the Discharger shall monitor that sampling location annually until there are no reports above its MDL for two consecutive years, at which point the Discharger may sample for that pesticide once every five years. Consecutive pesticide detections for equal to or greater than four years shall be analyzed for trends in the Trend Monitoring Report (Section VI.A). If there is an increase trend in the concentration of that pesticide, the Discharger shall implement adaptive management as described below. If there is no statistical increase in the concentration of that pesticide, the Discharger may return to a once-every-five-year sampling frequency. The Executive Officer may require the Discharger to implement adaptive management or to develop a Water Quality Management Plan in response to a measured pesticide concentration that exceeds a water quality objective.

D. Adaptive Management in Response to Surface Water Monitoring

1) The Discharger shall notify the Regional Water Board when an adaptive management threshold has been triggered. This threshold is defined as (1) more

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[77] During each 5-year cycle, all agricultural drainage structures and hydrologically connected discharge points on a vineyard shall be monitored, with 20 percent monitored annually. If there are less than five discharge points to monitor, the Discharger shall sample one per year until all are sampled and then restart in the next five-year cycle.

[78] Calibration logs shall be kept with the instrument and submitted with the Annual Compliance Report as required in Section V.D.

[79] See USEPA Method 180.1 (https://www.epa.gov/sites/default/files/2015-08/documents/method_180-1_1993.pdf).

[80] The representative discharge point or agricultural drainage structure must capture the tributary area in which the relevant pesticide was applied.

[81] The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in accordance with USEPA Definition and Procedure for the Determination of the Method Detection Limit, Revision 2. The laboratory establishes the MDL values based on the analytical test method and the types of calibrated laboratory equipment that are used.

than one consecutive exceedance of the 250 NTU turbidity benchmark in any monitored agricultural drainage structure or discharge point; or (2) an increasing trend of a pesticide concentration over a five-year period in any monitored drainage structure or discharge point.

2) The Discharger shall notify the Regional Water Board by including the location ID and photograph of the agricultural drainage structure or discharge point in the Annual Compliance Report.

3) If an agricultural drainage structure or drainage point has either: (1) an exceedance of the turbidity benchmark in two consecutive sampling years, or (2) an increasing trend in pesticide concentration over a five year period followed by a report of a pesticide above its MDL in two consecutive years, the Discharger shall attend an education or outreach event focused on controlling discharge of that pollutant (e.g., sediment erosion and control management practices for exceedances of the turbidity benchmark). The Discharger may satisfy this requirement for multiple parameters at one outreach event if the outreach event covers management practices to control dischargers of those applicable pollutants. This event may also serve as the Discharger's annual outreach and education event as required by the Order so long as the above requirements are satisfied.

4) If an agricultural drainage structure or drainage point has either: (1) an exceedance of the turbidity benchmark in three consecutive years, or (2) a report of a pesticide above the MDL in three consecutive years following a five-year statistical increase in concentration, the Discharger shall include an Adaptive Management Assessment in the Annual Compliance Report which is comprised of:

   a) A review of the management practices for compliance with approved management practices standards[82], and written documentation of any needed management practice improvements to prevent discharge of the pollutant.

   b) Photographs of all management practices implemented to control the discharge to that agricultural drainage structure or discharge point.

   c) Documentation of education or attendance of outreach event focused on

[82] Accepted sediment and erosion control management practice standards and design can be found in the NRCS-USDA National Conservation Practice Standards, USEPA's National Management Measures to Control Nonpoint Source Pollution from Agriculture ; Handbook of Forest, Ranch, and Rural Roads, A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads , California's Management Measures for Polluted Runoff ; Best Management Practices for VESCO Agricultural Erosion and Sediment Control ; The Land Steward's Guide to Vineyard and Orchard Erosion Control, the California Code of Sustainable Winegrowing Workbook , and the California Stormwater Quality Association BMP Handbook.

controlling discharge of the pollutant.

5) If an agricultural drainage structure or drainage point has either: (1) an exceedance of the turbidity benchmark in four consecutive years, or (2) a report of a pesticide above its MDL in four consecutive years following a five-year statistical increase in concentration of that pesticide, the Discharger shall develop a Water Quality Management Plan as described in Section II.C.5 of this Order.

6) In the case of run-on from offsite sources[83], the Discharger may sample the discharge where it enters the planted area, appurtenant agricultural roads, structures or areas of the commercial vineyard and adjust the turbidity benchmark to 250 NTUs above the run-on turbidity value in all agricultural drainage structures and discharge points that receive discharge from that run-on location.

7) The Discharger may submit an offsite turbidity source determination to the Executive Officer in accordance with Section II.C.5 of the Order.

IV. Groundwater Quality Monitoring Requirements

The evaluation of groundwater quality focuses on two primary areas: (1) drinking water supply well monitoring and (2) groundwater trend monitoring. The purpose of drinking water supply well monitoring is to monitor drinking water wells for nitrate and pesticide exceedances and notify well users of the potential for human health impacts. The purpose of groundwater quality trend monitoring is to evaluate regional trends in groundwater nitrate concentrations associated with commercial vineyards.

Drinking Water Supply Well Monitoring is not included in the Workplan and shall be conducted independent of Workplan approval.

A. Drinking Water Well Sampling

The purpose of drinking water supply well monitoring is to: (1) identify drinking water wells that have nitrate concentrations that exceed the Maximum Contaminant Level (MCL) of 10 mg/L (milligrams per liter) of nitrate+nitrite as N; (2) identify drinking water wells that have California Department of Pesticide Regulation (CDPR) 6800(a) list[84] pesticide concentrations that exceed the Human Health Reference Level (HHRL), the Primary MCL, or the Public Health Goal; and (3) notify any users of those wells of the potential for human health impacts.

[83] Discharges that originate offsite and flow onto the Farm Area.

[84] Department of Pesticide Regulation 6800(a) list (https://www.cdpr.ca.gov/docs/legbills/calcode/040101.htm).

1. General Monitoring Requirements

1) Dischargers shall sample all private drinking water supply wells[85] located on their enrolled parcels for nitrates. Dischargers shall sample in one representative private drinking water supply well for CDPR 6800(a) listed pesticides that the Discharger has applied on any of their enrolled parcels in the previous five years.

2) The initial sampling event must be completed in time to allow for the results to be submitted electronically to the State Water Board's GeoTracker database by July 1, 2027, and by July 1st thereafter.

3) Groundwater samples shall be collected using proper sampling methods, chain-of custody, and quality assurance/quality control protocols. Groundwater samples shall be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample shall be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

4) Laboratory analyses for groundwater samples shall be conducted by an Environmental Laboratory Accreditation Third-Party (ELAP)-certified laboratory according to the USEPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses shall be performed in accordance with the latest edition of Test Methods for Evaluating Solid Waste, SW-846, USEPA[86], and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories and program information can be found on the Water Board's ELAP website (www.waterboards.ca.gov\elap).

5) All drinking water supply well monitoring data, including any existing data, shall be submitted electronically to the State Water Board's GeoTracker database by the testing laboratory. The data submitted shall include the Assessor's Parcel Number (APN) where the drinking water supply well is located and the coordinates (latitude and longitude) of the drinking water supply well.

2. Drinking Water Well Sampling for Nitrates

1) Initial Sampling: Dischargers shall conduct annual drinking water supply well sampling for nitrates for three years from all drinking water wells located on enrolled parcels. In lieu of one or more of these initial three annual tests, Dischargers may submit one or more annual drinking water supply well sampling results from one or more of the five prior years, provided: (1) nitrate sampling of a drinking water well was completed prior to enrollment in the Order; and (2)

[85] Drinking water supply wells are any domestic or irrigation wells that are used to provide drinking water to residents, tenants, or farm employees.

[86] Test Methods for Evaluating Solid Waste, SW-846 (https://www.epa.gov/hw-sw846).

sampling and testing for nitrates and pesticides were completed using USEPA-approved methods and by an ELAP-certified laboratory.

2) Sampling Frequency: If the nitrate concentration is above 5 mg/L nitrate+nitrite as N in any of the first three annual samples, Dischargers shall continue conducting annual drinking water supply well sampling for nitrates. If the nitrate concentration is below 5 mg/L nitrate+nitrite as N in three consecutive annual samples, Dischargers may conduct sampling every five years. Sampling once every five years may continue unless the nitrate concentration exceeds 5 mg/L in any sample, in which case the Discharger must sample annually until the nitrate concentration is below 5 mg/L for three consecutive years. An alternative sampling schedule based on trending data for the well may be required by the Executive Officer at any time.

3) Terminating Sampling: Sampling may cease if a drinking water well is taken out of service or no longer provides drinking water because sufficient replacement water is being supplied. Dischargers shall keep any records (e.g., photos, bottled water receipts) establishing that the well is not used for drinking water.

4) Exceedances: If water in any well that is used for drinking water exceeds 10 mg/L of nitrate+nitrite as N, the Discharger shall provide notice to the drinking water well users within 10-days of learning of the exceedance and send a copy of the notice to the Regional Water Board. If the Discharger is not the owner of the parcel enrolled in the Order, the Discharger may provide notice instead to the owner within 24 hours of learning of the exceedance, and the owner shall provide notice to the drinking water well users within nine days and send a copy of the notice to the Regional Water Board.

5) Form of Notice: At a minimum, the Discharger or non-Discharger owner shall notice drinking water well users of the exceedance by providing them a copy of a Drinking Water Notification Template approved by the Executive Officer. The template shall be signed by the Discharger or non-Discharger owner certifying notice has been provided to the users. A copy of the signed template shall be sent to the Regional Water Board and retained by the Discharger or non-Discharger owner.

3. Drinking Water Supply Well Sampling for Pesticides

1) Sampling: Dischargers shall sample one representative[87] well every five years for any CDPR 6800(a) listed pesticides that were applied on any of the Discharger's enrolled parcels in the five years prior. In lieu of the initial sample, Dischargers may submit drinking water supply well sampling results from the five prior years,

[87] Representative well shall be within the same HUC12 in which the pesticides were applied, or within the closest drinking water well if no drinking water wells are within the HUC12 of the applied pesticide.

provided: (1) sampling of a drinking water well for the pesticide(s) was completed prior to enrollment in the Order; (2) sampling and testing for the pesticide(s) were completed using USEPA-approved methods and by an ELAP-certified laboratory; and (3) that sampling event occurred at least one year following the application of the pesticide(s).

2) Sampling Frequency: If the sampled concentration of a pesticide exceeds any of the following three values: (1) the CDPR Human Health Reference Level (HHRL)88, (2) the Primary MCL, or a (3) Public Health Goal, the Discharger shall sample all their drinking water wells for that pesticide in the following year. Annual sampling shall continue for all wells exceeding the HHRL or water quality objective for that pesticide until the concentration is below the HHRL and water quality objective for two consecutive years. Dischargers may then sample for that pesticide once every five years until the pesticide has not been applied in any of the five years prior to the sampling year. The Discharger may then cease sampling for that pesticide. An alternative sampling schedule based on trending data for the well may be required by the Executive Officer at any time.

3) Terminating Sampling: Sampling may cease if a drinking water well is taken out of service or no longer provides drinking water because sufficient replacement water is being supplied. Dischargers shall keep any records (e.g., photos, bottled water receipts) establishing that the well is not used for drinking water.

4) Exceedances: If water in any well that is used for drinking water exceeds CDPR's HHRL, the Primary MCL, or a Public Health Goal, the Discharger shall provide notice to users of the drinking water well within 10 days of learning of the exceedance and send a copy of the notice to the Regional Water Board. If the Discharger is not the owner of the parcel enrolled in the Order, the Discharger may provide notice instead to the owner within 24 hours of learning of the exceedance, and the owner shall provide notice to the drinking water well users within nine days and send a copy of the notice to the Regional Water Board.

5) Form of Notice: At a minimum, the Discharger or non-Discharger owner shall notice drinking water well users of the pesticide exceedance by providing them: (1) location of the drinking water well in which the exceedance occurred, (2) CDPR's Pesticide Information and Use Fact Sheet[89] and CDPR's Drinking Water Standards Fact Sheet[90] and (3) a copy of a Drinking Water Notification Template approved by the Executive Officer. The template shall be signed by the Discharger or non-

[88] CDPR HHRLs are available online (https://www.cdpr.ca.gov/docs/emon/grndwtr/gwp_sampling.htm).
[89] Pesticide Information and Use Fact Sheet (https://www.cdpr.ca.gov/docs/dept/factshts/pesticide_info_and_use_gw.pdf).
[90] CDPR Pesticide Drinking Water Standards Fact Sheet (https://www.cdpr.ca.gov/docs/dept/factshts/pesticide_info_and_use_gw.pdf).

Discharger owner certifying notice has been provided to the users. A copy of the signed template shall be sent to the Regional Water Board and retained by the Discharger or non-Discharger owner.

B. Groundwater Quality Trend Monitoring

The objectives of Groundwater Quality Trend Monitoring are: (1) to determine current groundwater quality conditions associated with commercial vineyards, and (2) to develop long-term groundwater quality information that can be used to evaluate regional groundwater quality impacts from commercial vineyards. This section provides the objectives and minimum sampling and reporting requirements for Groundwater Quality Trend Monitoring.

1. Monitoring Requirements

1) Minimum Parameters and Frequency: Monitoring wells shall be sampled, at a minimum, annually at the same time of the year and analyzed at least for the indicator parameters identified in Table A.4 below.

2) Monitoring Network: Details for wells proposed for groundwater monitoring in the Workplan shall include:

   a) GPS coordinates.

   b) California state well number (if known).

   c) Total well depth.

   d) Top and bottom depths of well casing perforations.

   e) A copy of the water well drillers log (if available).

   f) Depth of standing water (static water level), if available (this may be obtained after implementing the Third-Party Group).

   g) Well seal information (type of material, length of seal).

3) Sampling Requirements: Groundwater samples shall be collected using proper sampling methods, chain-of custody, and quality assurance/quality control protocols. Laboratory analyses for groundwater samples shall be conducted by an ELAP-certified laboratory according to the USEPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses shall be performed in accordance with the latest edition of Test Methods for Evaluating Solid Waste, SW-846, USEPA, and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found on the Water Board's ELAP website (www.waterboards.ca.gov\elap).

4) Data Submission: Groundwater monitoring data shall be submitted electronically to the State Water Board's GeoTracker database annually by the testing laboratory and included in the Annual Compliance Form as detailed in Section VI.B. The annual reports shall include a map of the sampled wells, tabulation of the analytical data, and time concentration charts.

5) Results for the five years preceding the Water Quality Trend Monitoring Report shall be included and shall be analyzed for trends within that report as detailed in Section VI.A of this MRP.

Table A.4: Individual Groundwater Monitoring and Minimum Frequency

Trend Monitoring Parameters	Units	Analysis Type	Frequency
Dissolved Oxygen (DO)	mg/L	Field	Annually
pH	pH units	Field	Annually
Conductivity (at 25º C)	µmhos/cm	Field	Annually
Temperature	ºC	Field	Annually
Nitrate as Nitrogen	mg/L	Laboratory	Annually
Total Dissolved Solids (TDS)	mg/L	Laboratory	Annually

V. Reporting Requirements:

1) Dischargers shall comply with the following reporting requirements and schedule outlined in Table A.1.

2) The Discharger shall create a GeoTracker user account. Instructions for setting up an account and the process of claiming a site, formatting, and uploading data, and other technical information can be found under "ESI Overview" and "Getting Started" sections on the State Water Board's website[91].

3) Groundwater monitoring analytical data shall be uploaded to GeoTracker in an Electronic Deliverable Format (EDF). Additionally, monitoring data, monitoring reports, and correspondence shall be in searchable Portable Document Format (PDF) and shall be uploaded annually to GeoTracker.

A. Water Quality Trend Monitoring Report (Trend Monitoring Report)

[91] GeoTracker electronic submittal of information (https://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/).

The Trend Monitoring Report shall be submitted on July 1st five years following approval of the Water Quality Monitoring Plan and by July 1st every year thereafter. The Trend Monitoring Report shall cover the monitoring periods from the previous five calendar years and shall include the following components:

1) A signed transmittal letter shall accompany each report. The transmittal letter shall be submitted and signed in accordance with the requirements of Section II.C.6 of the Order, Provisions.

2) Title page.

3) Table of contents.

4) Executive summary.

5) Monitoring objectives and design.

6) Sampling site/monitoring well descriptions and rainfall records for the time period covered under the Trend Monitoring Report.

7) Location map(s) of sampling sites/monitoring wells.

8) Results of all surface water and groundwater analyses. In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the required information is readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the data collection requirements of the MRP.

9) Discussion of data. The report shall include a discussion of the Discharger's compliance with the data collection requirements of the MRP. If a required component was not met, an explanation for the missing data shall be included. Results shall also be compared to water quality objectives and trigger limits.

10) Sampling and analytical methods used.

11) Electronic laboratory data reports of chemical results must include analytical results, as well as associated quality assurance data including method detection limits, reporting limits, matrix spikes, matrix spike duplicates, laboratory blanks, and other quality assurance results required by the analysis method. The Discharger may ask the laboratory to provide assistance with evaluation of their QA/QC data, provided that the Discharger prepares the summary table or narrative description of the results for the Trend Monitoring Report.

12) Summary of turbidity benchmark exceedances and pesticide detections above the MDL.

13) Actions taken to address turbidity benchmark exceedances that have occurred, including but not limited to, revised or additional management practices

implemented.

14) Evaluation of monitoring data to identify spatial trends and patterns.

    a) The Discharger shall evaluate its monitoring data in the Trend Monitoring Report to identify potential trends and patterns in surface water and groundwater quality that may be associated with waste discharge from their property.

    b) Wherever possible, the Discharger should utilize tables or graphs that illustrate and summarize the data evaluation.

c) Conclusions and recommendations.

B. Annual Compliance Report

The Annual Compliance Report shall be uploaded to GeoTracker by **July 1, 2026**, and by July 1st annually thereafter and shall consist of the following elements:

1) Farm Evaluation: inventory of management practices to control the discharge of sediment, pesticides and nutrients from the Farm Area and identification of wells, watercourses, and appurtenant structures. See Section V.B.1 below.

2) Irrigation and Nutrient Management Plan: Inventory of management practices to control the movement of nutrients to groundwater and reporting of Nitrogen Applied and Removed. See Section VI.B.2 below.

3) Annual Water Quality Monitoring Results: Results of a) Surface Water Quality Monitoring (See Section III), and b) Groundwater Quality Monitoring (see Section IV.).

4) Outreach Event Attendance: The Discharger shall report on the annual outreach event attended in the previous year.

5) CEQA Mitigation Monitoring: The Discharger shall report on the CEQA mitigation measures in Attachment D employed to comply with the provisions of the Order.

1. Farm Evaluation

1) The Farm Evaluation shall indicate the management practices already in place and describe modifications to existing management practices or additional management practices that have been or will be implemented and maintained to comply with all conditions of this Order.

2) Dischargers shall use the Farm Evaluation Template approved by the Regional Water Board's Executive Officer. At a minimum, the Farm Evaluation Template will include the following:

a) Owner/Operator Identification: The name, business address, mailing address, email address, phone number of the owner and operator (if different from owner).

b) Commercial Vineyard Identification: Location(s) of commercial vineyard parcel(s) under contiguous ownership, including: (1) the address, (2) the Assessor Parcel Numbers (APNs) and the county in which each parcel is located, (3) the Township, Range, and Section (TRS) of each enrolled APN; (4) the self-appointed Field ID[92] of each enrolled APN if applicable, and (5) the total acreage under cultivation for each APN.

c) Well Identification: The number of (1) irrigation wells, (2) drinking water supply wells, and (3) abandoned or inactive wells associated with each enrolled APN. Each well shall be given a unique Well ID.

d) Vineyard Map: A Vineyard Map shall include all enrolled parcels and may be an aerial photograph, topographic map, LiDAR-derived shaded relief map, Google Earth image, or equivalent that depicts features at 1-inch = 50 feet or larger scale. The vineyard base map(s) shall include a north arrow and label the following appurtenant features on all enrolled parcels:

   i) Field ID(s),

   ii) Streamflow diversion structures,

   iii) Agricultural drainage structures[93];

   iv) Farm buildings[94] and equipment yards,

   v) Nutrient or pesticide handling and mixing sites, storage facilities, staging areas; and

   vi) Appurtenant agricultural roads.

e) Management Practices: A list of management practices implemented within each field to minimize and prevent erosion and the discharge of sediment, nutrients, and pesticides from the Farm Area, agricultural roads and avenues, and streamside areas.

f) Irrigation and Nutrient Management: (1) A list of management practices

[92] Fields are defined as defined as areas of similar agrochemical, nutrient, and irrigation management for purposes of reporting.

[93] See definition in Appendix I: Acronyms and Definitions.

[94] Farm buildings include equipment storage sheds, farmworker housing, and processing buildings.

implemented within each field to minimize or prevent discharges of nutrients to surface waters and to minimize leaching of nitrogen past the root zone, (2) Primary and secondary irrigation methods for each APN, and (3) irrigation management practices to minimize or prevent surface run-off or groundwater leaching.

g) Certification of Maintenance: The Discharger shall certify on their Farm Evaluation that all management practices are designed, installed, maintained, and promptly repaired in accordance with Section II.C. of the Order.

h) Surface Water Sampling Points (if applicable): Labeled Sampling Points for every agricultural drainage structure and discharge point at its furthest downstream location on the commercial vineyard for which the discharge is in hydrologic connection[95] to surface waters.

2. Irrigation and Nitrogen Management Plan

1) Dischargers shall prepare and implement an Irrigation and Nitrogen Management Plan (INMP) for each field and submit the INMP to the Regional Water Board for the previous crop year as part of the Annual Compliance Form in accordance with the schedule in Table A.1.

2) Dischargers identified as nitrogen application and removal (AR) outliers by the Regional Water Board, based on enrolled dischargers in their Township, Range and Section (TRS), shall ensure the next INMP is prepared by an irrigation and nitrogen management planning specialist or self-certify their INMP[96]. On their certified INMP, these Dischargers shall report that they were notified as outliers for reported AR data and the INMP reflects additional or improved management practices implemented to address the potential over-application of nitrogen.

3) Where this Order requires reporting by field, Dischargers may aggregate data for a portion of a field or for multiple fields provided that the reported area has (1) the same fertilizer inputs, (2) the same irrigation management, and (3) the same management practices. In no case should a reported area exceed a total size of

[95] See definition in Appendix 1: Acronyms and Definitions.

[96] A certified irrigation and nitrogen planning specialist is a Certified Crop Advisor (CCA) who has completed the California Nitrogen Management exam through The California Department of Food and Agriculture (CDFA), the University of California – Davis, the American Society of Agronomy's (ASA) International Certified Crop Adviser (ICCA) Third-Party and/or the CCA – Western Region (WR) Board and takes the required continuing education credits. Dischargers may qualify as a irrigation and nitrogen planning specialist and self-certify their INMP if they take the CDFA Irrigation and Nitrogen Management Training for Grower Self-Certification, pass the Irrigation and Nitrogen Management Training and Exam and maintain the certification through continuing education (https://www.cdfa.ca.gov/is/ffldrs/frep/training.html).

640 acres. These “management units’ shall be defined, labeled and consistent across all INMP and Farm Evaluation reporting.

4) Dischargers shall use the INMP Template approved by the Regional Water Board’s Executive Officer. At a minimum, the INMP will collect the following information:

    a) Crop Year.

    b) Owner/Manager name.

    c) Assessor Parcel Number (APN).

    d) Acreage for each APN identified.

    e) Crop age.

    f) Irrigation method(s).

    g) Crop Yield (tons/acre)

    h) Nitrogen Applied (lbs./acre) from the following sources:

        i) All applied water (e.g., irrigation, frost protection, recycled water, winery process wastewater, etc.)

        ii) Synthetic Fertilizers, and/or

        iii) Organic Amendments (e.g., grape pomace, manure, compost, etc.)

    i) Documented outreach and education received or attended during the previous year in accordance with Section II.C.4 of this Order.

5) Dischargers shall use this information to calculate the Applied/Removed (A/R) ratio for nitrogen, and an Applied-Removed (A-R) difference for nitrogen, as defined in the equations in Table A.2. These shall be submitted in the Annual Compliance Report in accordance with the schedule outlined in Table A.1.

6) Every third reporting year, dischargers shall average the past 3 years of their AR Reporting and provide a 3-year A/R Ratio and A-R Difference in the Annual Compliance Form as defined in the equations in Table A.5.

Table A.5: Nitrogen Reporting Equations

Description	Equation
The A/R ratio is the ratio of total Nitrogen Applied[97] to Nitrogen Removed[98] (including all harvested materials and nitrogen annually sequestered in woody material)	$$\text{A/R Ratio} = \frac{\text{Nitrogen Applied (lbs./acre)}}{\text{Nitrogen Removed (lbs./acre}}$$
For each field for which three consecutive years of A/R ratio is available, the multi-year A/R ratio shall be reported as the ratio of total nitrogen applied to total nitrogen removed (calculated below) for the three prior consecutive years	$$A/R_{3\ year}\ \text{Ratio} = \frac{A_n + A_{n-1} + A_{n-2}}{R^n + R_{n-1} + R_{n-2}}$$ Where n = current reporting cycle A = Nitrogen Applied R = Nitrogen Removed
The A-R difference is the difference of total Nitrogen Applied and the total Nitrogen Removed	A-R Difference= Nitrogen Applied (lbs./acre) – Nitrogen Removed (lbs./acre)
The multi-year A-R difference shall be reported as the numerical difference between total nitrogen applied and total nitrogen removed for the three prior consecutive years.	$A\text{-}R_{3\ year}$ Difference= $[A_n + A_{n-1} + A_{n-2}] – [R_n + R_{n-1} + R_{n-2}]$ Where n = current reporting cycle A = Nitrogen Applied R = Nitrogen Removed
Total Nitrogen Removed is determined by multiplying a Discharger's crop yield by a crop-specific nitrogen coefficient, (C_N) which represents the amount of nitrogen in the harvested crop. The C_N coefficient may be obtained through a	Nitrogen Removed (lbs./acre) = Crop Yield (tons/acre) x C_N (lbs./tons)

[97] Nitrogen Applied – Nitrogen Applied includes all nitrogen proactively added to a field from any source, such as organic amendments, synthetic fertilizers, manure, and irrigation water.

[98] Nitrogen Removed – Nitrogen Removed includes all nitrogen taken from the field in harvested or other materials. Other materials may include wheat straw, orchard prunings, almond hulls, etc. In the case of perennial crops, Nitrogen Removed also includes the nitrogen annually sequestered in the permanent wood.

Description	Equation
University of California Viticultural advisor, an irrigation and nutrient planning specialist, or through literature.	

3. Annual Water Quality Monitoring Results

1) The Discharger shall submit results of ag drainage structure turbidity monitoring and groundwater monitoring over the previous year as described in Section III and Section IV of this MRP. The initial submittal will be by July 1st in the year following approval of the Water Quality Monitoring Workplan and by **July 1st** annually thereafter.

2) The annual report shall include a map of the ag drainage structure monitoring locations, sampled wells, tabulation of the analytical data, and concentration trend charts. Groundwater quality monitoring data are to be submitted electronically to the State Water Board's GeoTracker Database.

3) The Discharger shall submit groundwater field measurements and laboratory analysis results as they are available in an electronic format. The annual water quality monitoring data results shall include the following for the required reporting period:

    a) One Excel workbook containing all surface water data and one Excel workbook containing all groundwater monitoring data.

    b) Electronic copies of all field sheets.

    c) Electronic copies of photos obtained from all agricultural drainage structure turbidity sampling sites, clearly labeled with location code and date.

    d) Electronic copies of all applicable laboratory analytical reports shall be submitted once per year with the Annual Compliance Report.

    e) Calibration logs from all turbidimeters used in sampling.

    f) For chemistry data, analytical reports shall include, at a minimum, the following:

        i) A lab narrative describing quality control failures.

        ii) Analytical problems and anomalous occurrence.

        iii) Chain of custody and sample receipt documentation.

        iv) All sample results for contract and subcontract laboratories with units.

Reporting Limits and Method Detection Limits.

v) Sample preparation, extraction, and analysis dates.

vi) Results for all quality control samples including all field and laboratory blanks, lab control spikes, matrix spikes, field and laboratory duplicates, and surrogate recoveries.

4) If any data is missing from the annual report, the submittal shall include a description of what data is missing and when it will be submitted to the Regional Water Board.

4. Outreach Event Attendance

As part of the Annual Compliance Report, the Discharger shall submit outreach event attendance information. At a minimum, the outreach event records shall include:

1) Date of annual outreach event attended,

2) Type of outreach event (e.g., in-person meeting, online video, printed materials), and,

3) Brief description of topics covered.

5. CEQA Mitigation Monitoring

As part of the Annual Compliance Report, the Discharger shall report on the CEQA mitigation measures in Attachment D employed to comply with provisions of the Order. The CEQA Mitigation Monitoring reported in the Annual Compliance Report shall include information on the implementation of CEQA mitigation measures (mitigation measures are described in Attachment D of the Order), including the measure implemented, identified potential impact the measure addressed, parcel(s) where of the mitigation measure was employed, and any steps taken to monitor the ongoing success of the measure.

Attachment B: Monitoring and Reporting Program for Dischargers Enrolled in a Third-Party Group

I. Summary

Dischargers enrolled in an approved Third-Party Group shall complete a Farm Evaluation and Irrigation and Nutrient Management Plan (INMP) and submit them to the Third-Party Group. Dischargers shall also sample all drinking water supply wells on every enrolled parcel in the Order. The approved Third-Party Group shall aggregate Discharger management practice and nitrogen application reporting (Farm Evaluation and INMP) data and submit an Annual Compliance Report to the Regional Water Board.

By **July 1, 2027**, the Third-Party Group shall submit a Water Quality Monitoring Workplan (Workplan) to the Regional Water Board Executive Officer for approval, which details all group surface water and groundwater monitoring requirements on behalf of their enrolled dischargers. The Third-Party Group shall implement this Workplan and report results annually in the Annual Monitoring Report and every five years in a Trend Monitoring Report. By **July 1st**, seven years following initial INMP reporting, the Third-Party Group may submit a Groundwater Protection Plan which proposes a suite of nitrogen-related values for approval by the Regional Water Board Executive Officer.

A master schedule of Discharger deliverables is provided in Table B.1 below. A schedule of deliverables for Third-Party Groups on behalf of their enrolled Dischargers is provided in Table B.2 below. The Executive Officer may modify the MRP, as necessary or appropriate, at a future date.

Table B.1: Discharger Monitoring Master Schedule

Requirement	Initial Due Date	Frequency	Submit to
Drinking Water Well Sampling	By **July 1, 2027**	Varies; See Section IV.B	GeoTracker
Agricultural Drainage Structure Turbidity Monitoring[99]	All drainages sampled within a five-year monitoring cycle following approval of Workplan.	Every five years	Third-Party Group

[99] The Discharger may elect to have the Third-Party Group fulfill these monitoring requirements.

Table B.2: Discharger Reporting Master Schedule

Requirement	Initial Due Date	Frequency	Submit To:
Farm Evaluation	By a date set by the Third-Party that accommodates a **July 1, 2026**, submittal deadline of the Annual Compliance Report.	Annually	Third-Party Group
Irrigation and Nutrient Management Plan	By a date set by the Third-Party Group that accommodates a **July 1, 2026**, submittal deadline of the Annual Compliance Report.	Annually	Third-Party Group

Table B.3a: Third-Party Group Surface Water Monitoring Master Schedule

Requirement	Frequency	Where to Report Results
Tributary Turbidity Monitoring	Continuous	Trend Monitoring Report
Tributary Streambed Monitoring	Year 1, Year 4, and every five years thereafter	Trend Monitoring Report
Pesticide Monitoring	Every five years	Annual Monitoring Report (if detections) and Trend Monitoring Report

Table B.3b: Third-Party Group Representative Groundwater Monitoring Master Schedule

Requirement	Frequency	Where to Report Results
Groundwater Trend Monitoring	Annually	Annual Monitoring Report and Trend Monitoring Report

Table B.4: Third-Party Group Reporting Master Schedule

Requirement	Elements of Report	Submittal Deadline and Frequency
Water Quality Monitoring Workplan (Workplan)	Surface and Groundwater Quality Monitoring Workplans	Preliminary scope of work due January 1, 2027. Workplan due July 1, 2027. Submit to Regional Water Board Executive Officer
Groundwater Protection Plan	Groundwater protection formulas and targets, C_N coefficient and AR outlier determination	**July 1st**, seven years following initial INMP reporting.
Annual Compliance Report	Participant list, Management Practice data (Farm Evaluation, Irrigation and Nutrient Management Plan); AR calculations and outlier reporting, education and outreach tracking, CEQA Mitigation Monitoring.	By **July 1, 2026**, and by July 1st annually thereafter. Submit to GeoTracker.
Annual Monitoring Report	Annual ag drainage turbidity sampling and groundwater monitoring results	**July 1st**, one year following approval of the Water Quality Monitoring Workplan and by July 1st annually thereafter. Submit to GeoTracker.
Water Quality Trend Monitoring Report (Trend Monitoring Report)	All surface and groundwater quality monitoring results for previous five years. Surface water and groundwater trend analysis and conclusions.	Within five years of approval of Water Quality Monitoring Workplan and by **July 1st** every five years thereafter. Submit to GeoTracker.

II. Water Quality Monitoring Workplan

1) The Third-Party Group shall submit a scope of work by **January 1, 2027** followed by a Workplan by **July 1, 2027** to the Regional Water Board Executive Officer on behalf of their enrolled Dischargers for the following purposes: (1) implementing a surface water quality monitoring program in accordance with Section III of this MRP; (2) implementing a groundwater monitoring program in accordance with

Section IV.A of this MRP; and (3) providing an adaptive management approach to monitoring informed by collected data.

2) The scope of work shall describe the intent, goals, objectives, and rationale for the proposed monitoring by the Third-Party Group. The Workplan shall present proposed monitoring sites, work tasks, milestones, and method(s) used to evaluate data trends.

3) The scope of work shall be submitted to the Regional Water Board Executive Officer for approval by **January 1, 2027**. The Regional Water Board shall review and provide a response to the scope of work or inform the Discharger in writing of an alternative review schedule within 90 calendar days of submittal. The Workplan shall be submitted for approval by the Regional Water Board Executive Officer by **July 1, 2027**. The Third-Party Group shall implement the approved Workplan per the schedule of implementation as indicated in Table B.2.

4) The Workplan shall describe a sampling plan and frequency to comply with all requirements outlined in Section III (Surface Water Quality Monitoring Requirements) and Section IV (Groundwater Trend Monitoring Requirements) of this MRP.

5) The Workplan shall include a map and description of all required surface water monitoring points. The map(s) may be an aerial photograph(s), topographic map, LiDAR-derived shaded relief map, Google Earth image, or equivalent that depicts features at 1-inch = 50 feet or larger scale and that clearly delineates all monitoring points required in this MRP. The map may also be transmitted digitally as a set of geographic information system (GIS) files such as points, lines, polygons, and rasters in commonly accessible formats such as shapefiles and GeoTIFFs.

6) The Workplan shall consider the following criteria for identifying areas that may be at higher risk of nitrate impacts to groundwater quality from commercial vineyards: (1) Vineyard land use density; (2) Nitrogen application/removal rates (see Section VI.B); (3) Soil type and saturated hydraulic conductivity of soil; (4) Existing water quality data; (5) Depth to groundwater; (6) Absence of nearby domestic/commercial wastewater disposal and/or biosolids application to avoid effects of other nitrate sources; (7) The distribution of wells within both high and low vulnerability groundwater areas,[100] and (8) proximity to drinking water supply wells (public and

[100] High vulnerability groundwater areas are groundwater basins designated as 'Priority' groundwater basins for salt and nitrate planning based on the 2021 North Coast Groundwater Basin Prioritization Resolution (https://www.waterboards.ca.gov/northcoast/board_decisions/adopted_orders/pdf/2021/21_0006_Groundwater_Basin_Prioritization_Resolution.pdf) . Low vulnerability groundwater areas are groundwater basins not designated as 'priority basins.' See definition in Appendix I of this Order.

private).

5) The Workplan shall develop a method for ranking criteria and defining sensitive areas, use GIS-Based Spatial Analysis to develop a heat map[101] with the aggregated risk from each of the ranked criteria, and to prioritize higher risk areas for regional trend monitoring.

6) The Workplan shall include methodology(s) to: (1) evaluate trends in groundwater monitoring data, (2) evaluate pesticide concentration trends in surface water monitoring data, and (3) determine trends in Tributary Turbidity and Tributary Streambed monitoring data.

7) The Workplan shall include a Quality Assurance Project Plan (QAPP) that outlines procedures used to ensure the data collected and analyzed meet requirements of this MRP. The QAPP shall be consistent with guidance provided by the State Water Resources Control Board (State Water Board) regarding Quality Assurance/Quality Control[102].

8) Within five years of approval of the Workplan and every five years thereafter, a Water Quality Trend Monitoring Report (Trend Monitoring Report) that presents and analyzes all water quality monitoring results in the previous five years shall be submitted for review and approval by the Executive Officer. The scope and contents of the monitoring report are covered in Section VII.E of this MRP.

III. Surface Water Quality Monitoring Requirements

1) Surface water quality in this MRP is addressed through (1) monitoring sediment discharges through agricultural drainage structures, (2) monitoring pesticide discharges from areas with high density vineyard land-use, (3) measuring turbidity as a proxy for suspended sediment concentration; and (4) measuring streambed conditions (fine sediment and surface roughness) following implementation of the permit requirements as a method of tracking progress towards sediment conditions which are supportive of beneficial uses.

2) The Third-Party is encouraged to coordinate with regional surface water monitoring programs that become operational at a future date.

A. Tributary Turbidity Monitoring:

1) Tributary Turbidity Monitoring measures surface water turbidity (as proxy for suspended sediment concentrations) along with stream stage. The purpose is to

[101] Map representing data values using a range of cool to warm colors.

[102] See the State Water Board QA/QC (https://www.waterboards.ca.gov/water_issues/Third-Partys/quality_assurance/qapp.html).

evaluate the status and trend of surface water turbidity as it varies with stream stage over an extended period following implementation of the Order. Results will be used to track and evaluate progress towards achieving suspended sediment concentrations which are supportive of beneficial uses. Target conditions are decreasing trends in suspended sediment load for a given stream stage.

2) Surface water turbidity (as a proxy for suspended sediment concentration) and stream stage[103] shall be continuously monitored to evaluate temporal changes in Russian River and Navarro River tributary channel reaches within the winter steelhead and/or coho salmon distribution ranges[104].

3) The Third-Party Group shall monitor two tributary channel reaches in the Russian River watershed and one in the Navarro River watershed. Selection criteria for target reaches shall include the following: (1) access to install and maintain sampling equipment; (2) located within a National Hydrologic Dataset (NHD) catchment with a vineyard land area density in the highest quartile for the watershed; and (3) designated as within winter steelhead and/or coho distribution ranges.

4) The Third-Party may elect to sample one or more upstream location(s) for each of the selected channel reaches for the purposes of contextualizing monitoring results.

5) Sampling plan design and data collection methods shall provide sufficient data to evaluate temporal changes in turbidity and suspended sediment load relative to stream stage.

6) Acceptable sampling protocols include the following: (1) Pacific Southwest Research Station implementation guide for turbidity threshold sampling: principles, procedures, and analysis[105]; (2) USGS Guidelines and standard procedures for continuous water-quality monitors: Station operation, record computation, and data reporting[106]; and (3) a protocol approved by the Executive Officer.

7) The Third-Party Group shall submit Tributary Turbidity Monitoring results every five

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[103] Stage is the water level above some arbitrary point in the river and is commonly measured in feet.

[104] See the winter steelhead distribution GIS datset [ds340] (https://statics.teams.cdn.office.net/evergreen-assets/safelinks/1/atp-safelinks.html). See the coho distribution GIS dataset [ds326] (https://map.dfg.ca.gov/metadata/ds0326.html?5.108.311). Data is also available through BIOS (https://apps.wildlife.ca.gov/bios/).

[105] See the Pacific Southwest Research Station Implementation Guide (https://www.fs.usda.gov/psw/publications/documents/psw_gtr212/index.shtml).

[106] See USGS Guidelines (https://doi.org/10.3133/tm1D3).

years in the Trend Monitoring Report as described in Section VII.E of this MRP.

B. Tributary Streambed Monitoring

1) Tributary Streambed Monitoring measures certain streambed conditions (e.g., fine sediment and surface roughness). The purpose is to evaluate the status and trend in streambed conditions over an extended period following implementation of the Order. Results will be used to track and evaluate progress towards sediment conditions which are supportive of beneficial uses. Target conditions are decreasing trends in fine sediment and increasing trends of surface roughness.

2) Streambed composition shall be monitored to evaluate temporal changes in particle size distribution and roughness of exposed streambed surface deposits in Russian and Navarro River tributary channel reaches which are within steelhead and/or coho salmon distribution ranges.

3) The Third-Party Group shall monitor ten channel reaches in the Russian River watershed and two in the Navarro River watershed. Selection criteria for target reaches shall include the following: (1) access to a minimum of 1,000 linear feet of channel; (2) located within a National Hydrologic Dataset (NHD) catchment with a vineyard land area density in the highest quartile for the watershed; (3) designated as within winter steelhead and/or coho distribution ranges; and (4) has in-stream conditions which adversely impact beneficial uses.

4) In the first five years of Workplan implementation, Streambed Monitoring shall occur on Year 1 and on Year 4 for comparison. Monitoring shall occur every five years thereafter and results shall be compared to the original year one results.

5) Monitoring plan design and data collection methods shall provide sufficient data to evaluate temporal changes in exposed streambed substrate composition. Acceptable sampling protocols include the following: (1) Wolman Pebble Count; (2) structure-from-motion close range photogrammetry[107] and the Buscombe Digital Grain Size method[108] (3) United States Environmental Protection Agency (USEPA) Environmental Monitoring and Assessment Program; (4) Surface Water Ambient Monitoring Third-Party (SWAMP)-Index to Measure the Quality of Physical Habitat in California Wadeable Streams; or (5) a protocol approved by the Executive Officer.

[107] Whitepaper on Structure from Motion (SfM) Photogrammetry: Constructing Three Dimensional Models from Photography Bureau of Reclamation Research and Development Office Science and Technology Third-Party Final Report ST-2015-3835-1.

[108] Buscombe, D., 2013, Transferable wavelet method for grain-size distribution from images of sediment surfaces and thin sections, and other natural granular patterns: Sedimentology 60. (https://doi.org/10.1111/sed.12049).

6) The Third-Party Group shall submit Tributary Streambed Monitoring results every five years in the Water Quality Trend Monitoring Report as described in Section VI.E of this MRP.

C. Surface Water Pesticide Monitoring

1) The Third-Party Group shall monitor representative surface water sites for the pesticides listed in Table B.3 that have been applied to winegrapes in Sonoma and Mendocino Counties according to the last available CDPR Pesticide Use Reports. Surface water pesticide monitoring shall occur once every five years. The Executive Officer may revise required pesticides for monitoring as trends in use and detections shift.

2) The Third-Party Group shall propose in the Workplan a representative network of surface water monitoring sites that meet the following requirements:

    a) No less than one surface water monitoring site per HUC-12 watershed that are in the top quartile of vineyard density [109].

    b) Site locations shall be chosen in places that are representative of commercial vineyard land use within the HUC-12 watershed, and to avoid signal from uses not regulated under this Order.

3) Surface water quality sampling for pesticides shall be conducted between November 15 and April 1st in the required monitoring year and results shall be included in the Trend Monitoring Report.

4) Samples shall be taken within the flow area of the water. Sampling should be avoided from ponded, sluggish, or stagnant water.

5) Samples shall be collected, maintained, and shipped[110] in accordance with the current version of the SWAMP Quality Assurance Third-Party Plan[111].

6) The appropriate USEPA analytical method shall be utilized to analyze all applicable

[109] Quartiles of vineyard density shall be evaluated using all HUC-12 watersheds in the North Coast region.

[110] Agricultural drainage sampling may be completed by the Discharger or designated personnel provided they have completed necessary training in accordance with the SWAMP Quality Assurance Plan.

[111] See the SWAMP Quality Assurance Plan (https://www.waterboards.ca.gov/water_issues/Third-Partys/swamp/quality_assurance.html).

analytes consistent with the Method Detection Limit[112]

7) The Third-Party Group shall include trend analysis of pesticide monitoring in the Trend Monitoring Report. The Executive Officer may adjust surface water monitoring requirements, locations, or frequency as a result of trend monitoring results. Additionally, the Third-Party Group may propose similar revisions to the pesticide monitoring element of the Workplan as a result of trend monitoring to the Executive Officer for approval.

8) The Third-Party Group may submit a request to the Executive Officer to reduce surface water pesticide monitoring constituents or frequencies if, after two monitoring cycles, there are no detections and no trends of degradation that may threaten applicable Basin Plan beneficial uses[113]. The monitoring reduction petition may be granted on the condition that the Third-Party Group demonstrate in the Annual Monitoring Report that water quality management practices have not changed since the qualifying monitoring period on which the requested petition is based. The Executive Officer may re-instate the required monitoring if a detection occurs, a trend of degradation that may threaten applicable Basin Plan beneficial uses is indicated by available data, or management practices change in a manner that could result in pesticide detections or a trend of degradation.

Table B.3: Surface Water Monitoring Pesticides

azoxystrobin	fluxapyroxad	methoxyfenozide	simazine
boscalid	glyphosate	myclobutanil	tebuconazole
diazinon	imidacloprid	oryzalin	thiobencarb
diuron	iprodione	pendimethalin	triclopyr
fluopyram	kresoxim-methyl	propiconazole	trifloxystrobin

1. Pesticide Detections and Trend Analysis:

1) The Third-Party Group shall notify the Regional Water Board of any pesticide reported above its MDL in the Annual Water Quality Report. A pesticide reported above its MDL shall trigger annual monitoring for that parameter at the site in which

[112] The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero in accordance with USEPA Definition and Procedure for the Determination of the Method Detection Limit, Revision 2. The laboratory establishes the MDL values based on the analytical test method and the types of calibrated laboratory equipment that are used.

[113] Reference the Water Quality Objectives for pesticides that can be found in the Basin Plan.

it was detected until there is no detection above the MDL for two consecutive years, after which point monitoring may occur every five years.

2) The Third-Party Group shall analyze four or greater consecutive detections of a pesticide in any monitoring location for trends in the Trend Monitoring Report. If there is no statistical increase in concentration of that monitored pesticide, the Third-Party Group may resume sampling every five years. If there is a statistical increase, the Third-Party Group shall notify all enrolled Dischargers of the increasing trend and resume sampling for that pesticide every year.

3) Following an increasing trend in pesticide concentration, all Dischargers shall comply with the following requirements until there is no pesticide reported above its MDL for two consecutive years, or the next Trend Monitoring Report indicates no statistical increase:

4) Dischargers shall indicate in their Farm Evaluation if they have applied the detected pesticide on any of their enrolled parcels.

5) Dischargers who had applied the detected pesticide in the previous year shall attend an annual outreach and education event focused on practice to prevent discharge of that pesticide to surface water. This event may also serve as the Discharger's annual outreach and education event as required by the Order so long as the above requirements are satisfied.

6) If there is an exceedance of any pesticide water quality objective[114], the Executive Officer may require all Dischargers within the HUC-12 in which the exceedance occurred to implement adaptive management or develop a Water Quality Management Plan in accordance with Section II.C.5 of this Order.

D. Agricultural Drainage Structure Turbidity Monitoring

The purpose of Agricultural Drainage Structure Turbidity Monitoring is to (1) assess the effectiveness of management practices at preventing erosion and controlling sediment discharge; and (2) drive adaptive management.

1. Monitoring Requirements

1) The Discharger or Third-Party Group shall annually monitor turbidity values in 20

[114] Waters shall not contain any individual pesticide or combination of pesticides in concentrations that cause nuisance or adversely affect beneficial uses. There shall be no bioaccumulation of pesticide concentrations in bottom sediments or aquatic life that cause nuisance or adversely affect beneficial uses. In no case shall waters designated for use as domestic or municipal supply (MUN) contain concentrations of pesticides in excess of the numeric limits established in title 22 and as prospectively incorporated in 3.4.3 Chemical Constituents.

percent of agricultural drainage structures[115] on each vineyard on a 5-year cycle[116] at all outlets that discharge from the Farm Area to surface waters.

2) Agricultural drainage structures shall be assigned an anonymous location ID and aggregated and reported at the HUC-12 level[117].

3) Turbidity values in agricultural drainage structures shall be monitored during a qualifying storm event[118] from the first two hours discharge which occurs during daylight hours using a calibrated[119] turbidity meter (turbidimeter), either on-site or at an accredited lab. Acceptable laboratory test methods include Standard Method 2130 or USEPA Method 180.1[120]. Results shall be recorded in Nephelometric Turbidity Units (NTU).

4) Samples shall be collected, maintained, and shipped[121] in accordance with the current version of the SWAMP Quality Assurance Third-Party Plan[122].

5) The Third-Party Group shall include annual Agricultural Drainage Structure Turbidity Monitoring results in the Annual Monitoring Report as described in

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[115] Agricultural drainages structures are features that collect, convey, channel, hold, inhibit, retain, detain, infiltrate, divert, treat, or filter stormwater runoff, including detention and retention basins, overland flow paths, pipes, channels, and the inlets and outlets to these features. These can include vineyard tile drains and similar subsurface drainage structures. They do not include drainage alteration for private roads and driveways, dams, reservoirs, lakes, ponds, and structures.

[116] During each 5-year cycle, all agricultural drainage structures on a vineyard shall be monitored, with 20 percent monitored annually. If there are less than five agricultural drainage structures to monitor, the Discharger shall sample one per year until all are sampled and then restart in the next five-year cycle.

[117] A hierarchical hydrologic unit code (HUC) consisting of 2 additional digits for each level in the hydrologic unit system is used to identify any hydrologic area (see Federal Standards and Procedures for the National Watershed Boundary Dataset, 4th ed. 2013). A complete list of Hydrologic Unit codes, descriptions, names, and drainage areas can be found in the United States Geological Survey Water-Supply Paper 2294, entitled "Hydrologic Unit Maps".

[118] Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.

[119] Calibration logs shall be kept with the instrument and submitted with the Annual Water Quality Monitoring Report as required in Section VII.D.

[120] See USEPA Method 180.1 (https://www.epa.gov/sites/default/files/2015-08/documents/method_180-1_1993.pdf).

[121] Agricultural drainage sampling may be completed by the Discharger, designated personnel, or the Third-Party Group provided they have completed necessary training in accordance with the SWAMP Quality Assurance Plan (see footnote 12).

[122] See the SWAMP Quality Assurance Plan (https://www.waterboards.ca.gov/water_issues/Third-Partys/swamp/quality_assurance.html).

Section VII.D of this MRP.

6) Results for the five years preceding the Trend Monitoring Report shall be summarized and analyzed for trends in that report as described in Section VII.E of this MRP.

2. Exceedances of Turbidity Benchmark and Adaptive Management:

1) Dischargers with agricultural drainage structures that exceed the turbidity benchmark of 250 NTU shall be notified by the Third-Party Group and included on the Flagged Table of the Participant List in accordance with Section VII.C of this MRP.

2) The agricultural drainage structure at which the exceedance occurred shall be monitored annually until there is no exceedance for three years.

3) If an agricultural drainage structure has an exceedance of the 250 NTU turbidity benchmark in two consecutive years, the Discharger shall attend a training focused on sediment erosion and control management practices. This event may also serve as the Discharger's annual outreach and education event as required by the Order; however, the primary subject of the training must include sediment and erosion control management practices.

4) If an agricultural drainage structure has an exceedance of the 250 NTU turbidity benchmark in three consecutive years, the Discharger shall include in the Annual Compliance Report an Adaptive Management Assessment which is comprised of:

    a) A review of the management practices for compliance with approved management practices standards[123], and any needed management practice improvements to minimize or prevent erosion and the discharge of sediment to surface water.

    b) Photographs of all management practices implemented to minimize or prevent sediment discharge to that agricultural drainage structure or discharge point.

[123] Accepted sediment and erosion control management practice standards and design can be found in the NRCS-USDA National Conservation Practice Standards, USEPA's National Management Measures to Control Nonpoint Source Pollution from Agriculture ; Handbook of Forest, Ranch, and Rural Roads, A Guide for Planning, Designing, Constructing, Reconstructing, Upgrading, Maintaining, and Closing Wildland Roads , California's Management Measures for Polluted Runoff ; Best Management Practices for VESCO Agricultural Erosion and Sediment Control ; The Land Steward's Guide to Vineyard and Orchard Erosion Control, the California Code of Sustainable Winegrowing Workbook , and the California Stormwater Quality Association BMP Handbook.

c) Documentation of education or attendance of outreach event focused on sediment erosion and control management practices.

5) If an agricultural drainage structure or drainage point has an exceedance of the 250 NTU turbidity benchmark in four consecutive years, the Discharger shall develop a Water Quality Management Plan as described in Section II.C.5 of the Order.

6) In the case of run-on from offsite sources[124], the Discharger may sample the discharge where it enters the planted area, appurtenant agricultural roads, structures, or areas of the commercial vineyard and adjust the turbidity benchmark to 250 NTUs above the run-on turbidity value in all agricultural drainage structures and discharge points that receive discharge from that run-on location.

7) The Discharger may submit an offsite turbidity source determination to the Executive Officer in accordance with Section VI.C.5 of the Order. Upon Executive Officer approval of the offsite turbidity source determination, the Discharger shall continue sampling those impacted agricultural drainage structures and reporting results but is not obligated to perform adaptive management or corrective action.

IV. Groundwater Quality Monitoring Requirements

1) The evaluation of groundwater quality focuses on two primary areas: (1) drinking water supply well monitoring and (2) groundwater trend monitoring.

2) Drinking Water Supply Well Monitoring is not subject to inclusion in the Workplan and is conducted independently.

3) The Third-Party Group shall incorporate groundwater trend monitoring requirements listed in the next section in its Water Quality Monitoring Workplan (Section B.II) and conduct Groundwater trend monitoring and reporting on behalf of its enrolled Dischargers.

A. Groundwater Trend Monitoring

1) The objectives of Groundwater Quality Trend Monitoring are (1) to determine current water quality conditions of groundwater relevant to irrigated agriculture, and (2) to develop long-term groundwater quality information that can be used to evaluate the regional effects of a vineyard operations and its practices. This section provides the objectives and minimum sampling and reporting requirements for Groundwater Quality Trend Monitoring.

2) All wells shall be sampled annually, at a minimum, at the same time of the year and

[124] Discharges that originate from an area not located on the Discharger's enrolled parcel and flow onto the Farm Area

analyzed at least for the indicator parameters identified in Table B.3 below.

3) The Water Quality Monitoring workplan shall propose monitoring wells of sufficient number, location, and screening depth to provide coverage in the Third-Party geographic area so that current water quality conditions of groundwater and composite regional effects of vineyard operations can be assessed according to the trend monitoring objectives.

4) Details for wells proposed for groundwater monitoring shall include:

    a) GPS coordinates.

    b) Physical address of the property on which the well is situated (if available).

    c) California state well number (if known).

    d) Total well depth.

    e) Top and bottom depths of well casing perforations.

    f) Copy of the water well drillers log (if available).

    g) Depth of standing water (static water level), if available (this may be obtained after implementing the Third-Party Group).

    h) Well seal information (type of material, length of seal).

5) Complete well details may not always be available for trend monitoring wells. In these cases, well details must be provided to the maximum extent possible, and it must be reasonable to conclude that the well's characteristics are such that monitoring results from the well are appropriate for use in meeting the objectives of Groundwater Quality Trend Monitoring. Wells used for trend monitoring that do not have complete well details should be flagged so that they can be distinguished within the well network. Inclusion of any well in the well network is subject to Executive Officer approval.

Table B.3: Regional Groundwater Trend Monitoring and Minimum Frequency

Trend Monitoring Parameters	Units	Analysis Type	Frequency
Dissolved Oxygen (DO)	mg/L	Field	Annually
pH	pH units	Field	Annually
Conductivity (at 25º C)	µmhos/cm	Field	Annually
Temperature	ºC	Field	Annually
Nitrate as Nitrogen	mg/L	Laboratory	Annually
Total Dissolved Solids (TDS)	mg/L	Laboratory	Annually

B. Drinking Water Supply Well Monitoring

1) The purpose of the drinking water supply well sampling is to: (1) identify drinking water wells that have nitrate concentrations that exceed the Maximum Contaminant Level (MCL) of 10 mg/L (milligrams per liter) of nitrate+nitrite as N; (2) identify drinking water wells that have California Department of Pesticide Regulation (CDPR) 6800(a)[125] list pesticide concentrations that exceed the Human Health Reference Level (HHRL), the Primary MCL, or a Public Health Goal; and (3) notify any drinking water well users of the potential for human health impacts.

1. General Monitoring Requirements

1) Dischargers shall sample all private drinking water supply wells[126] located on their enrolled parcels for nitrates and one representative private drinking water supply well for CDPR 6800(a) listed pesticides that the Discharger has applied on any of their enrolled parcels in the previous five years.

2) The initial sampling event must be completed in time to allow for the results to be submitted electronically to the State Water Board's GeoTracker database by July 1, 2027. Dischargers may elect to work with a Third-Party Group to fulfill the sampling requirements of this section.

3) Groundwater samples shall be collected using proper sampling methods, chain-of custody, and quality assurance/quality control protocols. Groundwater samples

[125] See the CDPR 6800(a) List. (https://calpip.cdpr.ca.gov/infodocs/gwpa/external_section6800.cfm).

[126] Drinking water supply wells are any domestic or irrigation wells that are used to provide drinking water to residents, tenants, or farm employees.

shall be collected at or near the well head before the pressure tank and prior to any well head treatment. In cases where this is not possible, the water sample shall be collected from a sampling point as close to the pressure tank as possible, or from a cold-water spigot located before any filters or water treatment systems.

4) Laboratory analyses for groundwater samples shall be conducted by an Environmental Laboratory Accreditation Third-Party (ELAP)-certified laboratory[127] according to the USEPA approved methods; unless otherwise noted, all monitoring, sample preservation, and analyses shall be performed in accordance with the latest edition of Test Methods for Evaluating Solid Waste, SW-846, USEPA[128], and analyzed as specified herein by the above analytical methods and reporting limits indicated. Certified laboratories can be found on the Water Board's ELAP website (www.waterboards.ca.gov\elap).

5) All drinking water supply well monitoring data shall be submitted electronically to the State Water Board's GeoTracker database by the testing laboratory. Any existing data may be submitted to GeoTracker by the Discharger. All data submitted shall include the Assessor's Parcel Number (APN) where the drinking water supply well is located and the coordinates (latitude and longitude) of the drinking water supply well.

C. Drinking Water Well Sampling for Nitrates

1) Initial Sampling: Dischargers shall conduct annual drinking water supply well sampling for nitrates for three years. In lieu of one or more of these initial three annual tests, Dischargers may submit one or more annual drinking water supply well sampling results from one or more of the five prior years, provided: (1) nitrate sampling of a drinking water well was completed prior to enrollment in the Order, and (2) sampling and testing for nitrate was completed using USEPA-approved methods and by an ELAP-certified laboratory.

2) Sampling Frequency: If the nitrate concentration is above 5 mg/L nitrate+nitrite as N in any of the first three annual samples, Dischargers shall continue conducting annual drinking water supply well sampling for nitrates. If the nitrate concentration is below 5 mg/L nitrate+nitrite as N in three consecutive annual samples, Dischargers may conduct sampling every five years. Sampling once every five years may continue unless the nitrate concentration exceeds 5 mg/L, in which case the Discharger must sample annually until the nitrate concentration is below 5 mg/L for three consecutive years. An alternative sampling schedule based on trending data for the well may be required by the Executive Officer at any time.

[127] See ELAP Labs (https://www.waterboards.ca.gov/drinking_water/certlic/labs/).
[128] See USEPA SW-846 (https://www.epa.gov/hw-sw846).

3) Terminating Sampling: Sampling may cease if a drinking water well is taken out of service or no longer provides drinking water because sufficient replacement water is being supplied. Dischargers shall keep any records (e.g., photos, bottled water receipts) establishing that the well is not used for drinking water.

4) Exceedances: If water in any well that is used for drinking water exceeds 10 mg/L of nitrate+nitrite as N, the Discharger shall provide notice to the drinking water well users within 10 days of learning of the exceedance and send a copy of the notice to the Regional Water Board. If the Discharger is not the owner of the parcel enrolled in the Order, the Discharger may provide notice instead to the owner within 24 hours of learning of the exceedance, and the owner shall provide notice to the drinking water well users within nine days and send a copy of the notice to the Regional Water Board.

5) Form of Notice: At a minimum, the Discharger or non-Discharger owner shall notify drinking water well users of the exceedance by providing them a copy of a Drinking Water Notification Template approved by the Executive Officer. The template shall be signed by the Discharger or non-Discharger owner certifying notice has been provided to the users. A copy of the signed template shall be sent to the Regional Water Board and retained by the Discharger or non-Discharger owner.

D. Drinking Water Supply Well Sampling for Pesticides

1) Sampling: Dischargers shall sample one representative well[129] every five years for any CDPR 6800(a) listed pesticides that were applied on any of the Discharger's enrolled parcels in the five years prior. In lieu of the initial sample, Dischargers may submit drinking water supply well sampling results from the five prior years, provided: (1) sampling of the drinking water well was completed prior to enrollment in the Order, and (2) sampling and testing for the pesticide(s) were completed using USEPA-approved methods and by an ELAP-certified laboratory; and that sampling event occurred at least one year following the application of the pesticide(s).

2) Sampling Frequency: If the sampled concentration of a pesticide exceeds the any of the following three values: (1) the CDPR Human Health Reference Level (HHRL)[130], (2) the Primary MCL, or a (3) Public Health Goal, the Discharger shall sample all their drinking water wells for that pesticide in the following year. Annual sampling shall continue for all wells with exceedances for that pesticide until the concentration is below the exceedance level for two consecutive years. Dischargers may then sample for that pesticide once every five years until the

[129] Representative well shall be within the same HUC12 in which the pesticides were applied, or within the closest drinking water well if no drinking water wells are within the HUC12 of the applied pesticide.

[130] See CDPR HHRLs (https://www.cdpr.ca.gov/docs/emon/grndwtr/gwp_sampling.htm).

pesticide has not been applied in any of the five years prior to the sampling year. The Discharger may then cease sampling for that pesticide in all drinking water wells. An alternative sampling schedule based on trending data for the well may be required by the Executive Officer at any time.

3) Terminating Sampling: Sampling may cease if a drinking water well is taken out of service or no longer provides drinking water because sufficient replacement water is being supplied. Dischargers shall keep any records (e.g., photos, bottled water receipts) establishing that the well is not used for drinking water.

4) Exceedances: If water in any well that is used for drinking water exceeds either CDPR's Human Health Reference Levels (HHRLs), the Primary MCL, or a Public Health Goal, the Discharger shall notify users of the drinking water well within ten days of learning of the exceedance and send a copy of the notice to the Regional Water Board. If the Discharger is not the owner of the parcel enrolled in the Order, the Discharger may provide notice instead to the owner within 24 hours of learning of the exceedance, and the owner shall provide notice to the drinking water well users within nine days and send a copy of the notice to the Regional Water Board.

5) Form of Notice: At a minimum, the Discharger or non-Discharger owner shall notify drinking water well users of the pesticide exceedance by providing them: (1) location of the drinking water well in which the exceedance occurred, (2) CDPR's Pesticide Information and Use Fact Sheet[131] and CDPR's Drinking Water Standards Fact Sheet[132] and (3) a copy of a Drinking Water Notification Template approved by the Executive Officer. The template shall be signed by the Discharger or non-Discharger owner certifying notice has been provided to the users. A copy of the signed template shall be sent to the Regional Water Board and retained by the Discharger or non-Discharger owner.

V. Reporting Requirements for Dischargers

1) Dischargers shall provide the following reports to the Third-Party Group in accordance with the master schedule in Table B.2. The initial Farm Evaluation and Irrigation and Nutrient Management Plan shall be submitted by a date that the Third-Party Group determines for inclusion in the Annual Compliance Report, which is due **July 1, 2026**, and by July 1st annually thereafter. The Farm Evaluation and INMP report on practices and nitrogen application for the previous crop year.

[131] See Pesticide Info Sheet (https://www.cdpr.ca.gov/docs/dept/factshts/pesticide_info_and_use_gw.pdf).
[132] See Pesticide Drinking Water Sheet (https://www.cdpr.ca.gov/docs/dept/factshts/pesticide_drinking_water_gw.pdf).

A. Farm Evaluation

1) The Farm Evaluation shall indicate the management practices already in place and prescribe additional management practices or modifications to existing management practices that have been or will be implemented and maintained to comply with all conditions of this Order.

2) Dischargers shall use the Farm Evaluation Template approved by the Regional Water Board's Executive Officer. The Farm Evaluation Template will include the following:

    a) Owner/Operator Identification: The name, business address, mailing address, email address, phone number of the owner and operator (if different from owner).

    b) Commercial Vineyard Identification: Location(s) of enrolled vineyard parcel(s), including: (1) the address, (2) the Assessor Parcel Numbers (APNs) and the county in which each parcel is located, (3) the Township, Range and Section (TRS) of each enrolled APN; (4) the self-appointed Field ID(s)[133] of each enrolled APN if applicable and (5) the total acreage under cultivation for each APN.

    c) Well Identification: The number of (1) irrigation wells, (2) drinking water supply wells, and (3) abandoned or inactive wells associated with each enrolled APN. Each well shall be given a unique Well ID.

    d) Vineyard Map: A vineyard map shall include all enrolled parcels and may be an aerial photograph, topographic map, LiDAR-derived shaded relief map, Google Earth image, or equivalent that depicts features at 1-inch = 50 feet or larger scale. The vineyard base map(s) shall include a north arrow and label the following appurtenant features on all enrolled parcels: (1) Field ID(s) (2) Streamflow diversion structures; (3) Agricultural drainage structures; (4) Farm buildings[134] and equipment yards; (5) appurtenant agricultural roads.

    e) Management Practices: A list of management practices implemented to prevent erosion and control the discharges of sediment, nutrients, and pesticides from the Farm Area, agricultural roads and vineyard avenues, and streamside areas.

[133] Fields are defined as defined as areas of similar pesticide, nutrient, and irrigation management for purposes of reporting (e.g., vineyard blocks).

[134] Farm buildings include equipment storage sheds, farmworker housing, and processing buildings.

f) Irrigation and Nutrient Management: (1) A list of management practices implemented to control discharges of nutrients to surface waters and to minimize leaching of nitrogen past the root zone, (2) Primary and secondary irrigation methods for each APN and (3) Irrigation management practices to minimize surface run-off or groundwater leaching.

g) Certification of Maintenance: The Discharger shall certify on their Farm Evaluation that all management practices are designed, installed, and maintained, and promptly repaired in accordance with Section II.C of the Order.

h) Agricultural Drainage Structure Sampling Locations (if applicable): Labeled agricultural drainage structure sampling locations for every agricultural drainage structure at its furthest downstream location on the Farm Area for which the discharge is in hydrologic connection[135] to surface waters. Agricultural drainage structure sampling locations are utilized for stormwater monitoring as specified in Section III of this MRP.

B. Irrigation and Nitrogen Management Plan

1) The Irrigation and Nitrogen Management Plan (INMP) budgets nitrogen application and removal (AR) rates on the commercial vineyard. The Third-Party Group will use this data to calculate and transmit information in accordance with Table B.4 and identify outliers in accordance with Section VI.F of this MRP.

2) Dischargers shall prepare and submit an INMP for each field for the prior crop year. Where this Order requires reporting by field, Dischargers may aggregate data for a portion of a field or for multiple fields provided that the reported area has (1) the same fertilizer inputs, (2) the same irrigation management, and (3) the same management practices. In no case should a reported area exceed a total size of 640 acres. These "management units' shall be defined, labeled and consistent in the reporting.

3) Dischargers identified as outliers as described in Section VI.F, shall get the INMP for the following year certified by an irrigation and nitrogen management planning specialist or self-certify their INMP[136]. Dischargers shall indicate on the INMP

[135] Physical connection of water and sediment between and through a drainage network.

[136] A certified irrigation and nitrogen planning specialist is a Certified Crop Advisor (CCA) who has completed the California Nitrogen Management exam through The California Department of Food and Agriculture (CDFA), the University of California – Davis, the American Society of Agronomy's (ASA) International Certified Crop Adviser (ICCA) Third-Party and/or the CCA – Western Region (WR) Board and takes the required continuing education credits. Dischargers may self-certify their INMP if they take the CDFA Irrigation and Nitrogen Management Training

following outlier notification that they were notified as outliers for reported AR data and reflect additional or improved management practices implemented to address potential over-application of nitrogen.

4) Dischargers must use the INMP Template approved by the Regional Water Board's Executive Officer. At a minimum, the INMP will collect the following information:

   a) Crop Year.

   b) Owner/Manager name.

   c) Assessor Parcel Number (APN).

   d) Acreage for each parcel identified.

   e) Crop age (permanent crops).

   f) Irrigation method.

   g) Total Acreage.

   h) Crop Yield (in specified units)

   i) Documented outreach and education received or attended during previous year in accordance with Section III.C.4 of this Order.

   j) Nitrogen Applied (lbs./acre) from the following sources:

      i) All applied water (e.g., irrigation, frost protection, recycled water, winery process wastewater, etc.)

      ii) Synthetic Fertilizers, and/or

      iii) Organic Amendments (e.g., grape pomace, manure, compost, etc.)

VI. Reporting Requirements for Third-Party Groups on Behalf of Enrolled Dischargers

A. Annual Compliance Report

1) By **July 1, 2026**, and by July 1st annually thereafter, the Third-Party Group shall submit to the Regional Water Board an Annual Compliance report consisting of:

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for Grower Self-Certification, pass the Irrigation and Nitrogen Management Training and Exam and maintain the certification through continuing education (https://www.cdfa.ca.gov/is/ffldrs/frep/training.html).

a) The Participant List,

b) Management practice implementation data from the most recently submitted Farm Evaluations,

c) Nitrogen reporting from the most recently submitted INMPs,

d) Outreach Attendance, and

e) CEQA Mitigation Monitoring.

2) This data shall be submitted in Excel Workbook format as described in items 1-3 below. A report shall accompany the submitted data which summarizes submitted data and notes any significant changes in management practices or nitrogen application information since the previous year submittal. The summary of management practice data must include a quality assessment of the collected information by township (e.g., missing data, potentially incorrect/inaccurate reporting), and a description of corrective actions to be taken regarding any deficiencies in the quality of data submitted, if such deficiencies were identified.

1. Annual Participant List Submittal

1) The list of Dischargers enrolled through the Third-Party Group shall be reported to the Regional Water Board in an Excel Workbook format and contain the following information in three separate Tables.

2) Table 1: Participating Dischargers:

a) Owner/Operator Name

b) Owner/Operator Address

c) Total number of enrolled acres

3) Table 2: Non-Participating Dischargers. This table identifies Dischargers that are no longer participating with the Third-Party Group for any reason. This table must include the following information:

a) Owner/Operator Name

b) Owner/Operator Address

c) Total number of acres no longer enrolled participating under Third-Party Group enrollment,

d) Reason for non-participation in Third-Party Group, including but not limited to:

i) No longer farming/sold farm,

ii) Enrolling in Order individually, or

iii) Failure to:

1. Implement water quality management practices,
2. Submit a complete Farm Evaluation,
3. Submit a complete annual INMP Summary Report,
4. Provide confirmation of participation in at least one outreach activity,
5. Pay the required fees, or
6. Respond to an information request associated with any applicable provisions of this Order.

iv) Other

4) Table 3: Flagged Dischargers. This table identifies Dischargers who have either been identified as Nitrogen AR outliers in accordance with Section VI.F or are doing Adaptive Management due to any of the conditions outlined in Section III.D of this MRP. This table must include the following information:

a) Owner/Operator Name

b) For each owner/operator identified, note reason(s) for inclusion on this list and provide the following information, if applicable:

i) Identified as a Nitrogen AR Outlier in accordance with Section VI.B of this MRP.

ii) Failure to implement required Management Practices.

iii) Discharger is implementing Adaptive Management. For each Discharger implementing Adaptive Management, the Third-Party Group shall include the following information:

1. Water quality parameter being addressed,
2. Year of Adaptive Management implementation, and
3. If a Water Quality Management Plan is due next reporting cycle.

2. Annual Submittal of Management Practice (Farm Evaluation) Data

1) The following data from the prior year's Farm Evaluations shall be reported to the Regional Water Board for each APN in an Excel Workbook format:

    a) Anonymous Discharger ID.

    b) Township, Range and Section (TRS) of APN.

    c) Irrigation method.

    d) Irrigation practices.

    e) Pest management practices.

    f) Sediment and erosion management practices.

    g) Nitrogen management practices.

    h) Number of irrigation wells (both active and inactive).

    i) Number of drinking water wells.

3. Annual Submittal of Irrigation and Nitrogen Management Summary Data

1) The Third-Party Group shall submit data as described below from the prior year's Irrigation and Nitrogen Management Plans (INMP) and additional calculations as described below in three tables in Excel workbook format.

2) The Third-Party Group shall calculate the values as described in Table B.4 and convert them to per acre values for inclusion into three tables as described below reported to the Regional Water Board as part of the Annual Management Practices Report.

3) Table 1: Individual Field-Level AR Data by Anonymous Discharger ID: One entry is made for each field reported:

    a) Anonymous Discharger ID: Each Anonymous Discharger ID may be associated with more than one field.

    b) Nitrogen applied via fertilizers (lbs/acre).

    c) Nitrogen applied via organics and compost (lbs/acre).

    d) Nitrogen applied via water (lbs/acre).

    e) Total Nitrogen applied (lbs/acre) [sum of nitrogen from fertilizer, organics/compost, and all applied water].

f) Nitrogen removed per acre (lbs/acre).

g) A/R ratio as defined in calculations in Table B.4.

h) A-R difference (lbs/acre) as defined in calculations in Table B.4.

i) 3-year A/R ratio if available as defined in calculations in Table B.4.

4) Table 2: Individual Field-Level AR Data by APN Table: An entry for a field may be repeated if there is more than one Anonymous APN ID associated with the field or management unit.

a) Anonymous APN ID: List on a separate line each Anonymous APN ID assigned to parcels the field overlays completely or partially.

b) Associated groundwater basin or sub-basin.

c) Township, range and section of each anonymous APN ID.

d) Nitrogen applied via fertilizers (lbs/acre).

e) Nitrogen applied via organics and compost (lbs/acre).

f) Nitrogen applied via irrigation water (lbs/acre).

g) Total Nitrogen applied (lbs/acre) [sum of nitrogen from fertilizer (iv), organics/compost (v), and irrigation water (vi)]

h) Nitrogen removed per acre (lbs/acre).

i) A/R ratio as defined in calculations in Table B.4.

j) A-R difference (lbs/acre) as defined in calculations in Table B.4.

k) 3-year A/R ratio if available as defined in calculations in Table B.4.

5) Table 3: Township-Level Aggregated AR Data Table:

a) Township, range and section.

b) Total acreage: sum for all the acreage for within the township (acres).

c) Total nitrogen applied via fertilizer: sum for all acreage in township (total lbs).

d) Total nitrogen applied via organics and compost: sum for all acreage in township (total lbs). Total nitrogen applied via irrigation water, recycled water, and winery process wastewater: sum for all acreage in township

(total lbs.).

e) Total nitrogen applied (total lbs.) [sum of nitrogen from fertilizer, organics/compost, and all applied water)].

f) Total nitrogen removed for all acreage in acreage (total lbs.).

g) A/R ratio for township as defined in calculations in Table B.4.

h) A-R difference for township (total lbs.) as defined in calculations in Table B.4.

4. Nitrogen Reporting Calculations

1) The Third-Party Group shall review each Discharger's INMP Summary Reports and independently calculate and report both the A/R ratio and the A-R difference for the current reporting cycle (A/R1 year and A-R1 year). Beginning the third year of reporting, for those locations with data available for three years, the Third-Party Group shall calculate and report a three-year running total for both the A/R ratio and the A-R difference (A/R3 year and A-R3 year) in accordance with the equations in Table B.4 below.

2) The Third-Party Group shall submit these calculations in accordance with the Nitrogen Summary Report requirements in Section VI.A.3 above.

Table B.4: Nitrogen Reporting Equations

Description	Equation
The A/R ratio is the ratio of total Nitrogen Applied[137] to Nitrogen Removed[138] (including all harvested materials and nitrogen annually sequestered in woody material)	$$\text{A/R Ratio} = \frac{\text{Nitrogen Applied (lbs./acre)}}{\text{Nitrogen Removed (lbs./acre}}$$
For each field for which three consecutive years of A/R ratio is available, the multi-year A/R ratio shall be reported as the ratio of total nitrogen applied to total nitrogen removed (calculated below) for the three prior consecutive years	$$A/R_{3\ year}\ \text{Ratio} = \frac{A_n + A_{n-1} + A_{n-2}}{R_n + R_{n-1} + R_{n-2}}$$ Where n = current reporting cycle A = Nitrogen Applied R = Nitrogen Removed
The A-R difference is the difference of total Nitrogen Applied and the total Nitrogen Removed	A-R Difference= Nitrogen Applied (lbs./acre) – Nitrogen Removed (lbs./acre)
The multi-year A-R difference shall be reported as the numerical difference between total nitrogen applied and total nitrogen removed for the three prior consecutive years.	$A\text{-}R_{3\ year}$ Difference = $[A_n + A_{n-1} + A_{n-2}] – [R_n + R_{n-1} + R_{n-2}]$ Where n = current reporting cycle A = Nitrogen Applied R = Nitrogen Removed

[137] Nitrogen Applied – Nitrogen Applied includes all nitrogen proactively added to a field from any source, such as organic amendments, synthetic fertilizers, manure, and irrigation water.

[138] Nitrogen Removed – Nitrogen Removed includes all nitrogen taken from the field in harvested or other materials. Other materials may include wheat straw, orchard prunings, almond hulls, etc. In the case of perennial crops, Nitrogen Removed also includes the nitrogen annually sequestered in the permanent wood.

Description	Equation
Total Nitrogen Removed is determined by multiplying a Discharger's crop yield by a crop-specific nitrogen coefficient (C_N) provided by the Third-Party Group, which represents the amount of nitrogen in the harvested crop. The Third-Party Group may determine, through nitrogen removed testing and research, the most appropriate C_N coefficient for converting crop yield to nitrogen removed. Until the C_N coefficients have been established, the Discharger will only report the crop yield in the INMP. Nitrogen Removed includes nitrogen removal via harvest and nitrogen sequestered in permanent wood of perennial crops	Nitrogen Removed (lbs./acre) = Crop Yield (tons/acre) x C_N (lbs./tons)

5. Outreach Event Attendance

1) The Third-Party Group shall submit outreach event attendance information on behalf of its Dischargers. At a minimum, the outreach event records shall include:

    a) Anonymous Discharger ID,

    b) Date of annual outreach event attended,

    c) Type of outreach event (e.g., in-person meeting, online video, printed materials), and

    d) Brief description of topics covered.

6. CEQA Mitigation Monitoring

1) As part of the Annual Compliance Report, the Third-Party Group shall report on the CEQA mitigation measures reported by its enrolled Dischargers to meet the provisions of the Order and any mitigation measures the Third-Party Group has implemented on behalf of Dischargers. The Mitigation Monitoring Report shall include information on the implementation of CEQA mitigation measures (mitigation measures are described in Attachment D of the Order), including the measure implemented, identified potential impact the measure addressed, location of the mitigation measure (township, range, section), and any steps taken to monitor the ongoing success of the measure.

B. Annual Water Quality Monitoring Report (Annual Monitoring Report)

1) The Third-Party Group shall submit an Annual Monitoring Report that includes results of ag drainage structure turbidity monitoring and groundwater monitoring over the previous year as described in Section III of this MRP. The initial submittal will be by July 1st, one year following approval of the Water Quality Monitoring Workplan and by July 1st annually thereafter.

2) The annual reports shall include a map of the HUC-12 units in which ag drainage structure monitoring occurred in the previous year, sampled wells, tabulation of the analytical data, and time of concentration (Tc) charts. Groundwater quality monitoring data are to be submitted electronically to the State Water Board's GeoTracker Database.

3) The Third-Party Group shall submit groundwater field measurements and laboratory analysis results as they are available in an electronic format. The annual water quality monitoring data results shall include the following for the required reporting period:

    a) One Excel workbook containing all surface water data and one Excel workbook containing all groundwater monitoring data. Ag drainage turbidity data shall be reported by anonymous location ID at the HUC-12 level.

    b) Electronic copies of all field sheets.

    c) Electronic copies of photos obtained from all surface water monitoring sites, clearly labeled with anonymous location code, HUC-12, and date.

    d) Electronic copies of all applicable laboratory analytical reports shall be submitted once per year with the Annual Monitoring Report.

    e) Calibration logs from all turbidimeters used in sampling.

    f) For chemistry data, analytical reports must include, at a minimum, the following:

    g) A lab narrative describing quality control failures.

    h) Analytical problems and anomalous occurrence.

    i) Chain of custody and sample receipt documentation.

    j) All sample results for contract and subcontract laboratories with units, Reporting Limits, and Method Detection Limits.

    k) Sample preparation, extraction, and analysis dates.

l) Results for all quality control samples including all field and laboratory blanks, lab control spikes, matrix spikes, field and laboratory duplicates, and surrogate recoveries.

4) If any data is missing from the annual report, the submittal must include a description of what data is missing and when it will be submitted to the Regional Water Board.

C. Water Quality Trend Monitoring Report (Trend Monitoring Report)

1) On July 1st, five years following approval of the Workplan and by July 1st every fifth year thereafter, the Third-Party Group shall submit a Water Quality Trend Monitoring Report (Trend Monitoring Report) that reports and analyzes all water quality monitoring data as described in Section III and Section IV over the previous five years.

2) The Trend Monitoring Report shall include the following components:

a) A signed transmittal letter shall accompany each report. The transmittal letter shall be submitted and signed in accordance with the requirements of Section II.C.6 of the Order, Provisions.

b) Title page.

c) Table of contents.

d) Executive summary.

f) Description of the Third Party's covered geographical area.

g) Monitoring objectives and design.

h) Sampling site/monitoring well descriptions and rainfall records for the time period covered under the Trend Monitoring Report.

i) Location map(s) of sampling sites/monitoring wells and land uses:

i) Location map(s) showing the sampling sites/monitoring wells and land uses within the geographic area of the Third-Party Group's members must be included in the Trend Monitoring Report.

ii) An accompanying GIS shapefile or geodatabase of monitoring site and monitoring well information must include site code and name (for surface water only) and Global Positioning System (GPS) coordinates (for tributary turbidity, streambed monitoring, and representative pesticide monitoring sites, and wells used for monitoring).

iii) GPS coordinates must be provided as latitude and longitude in the decimal degree coordinate system (at a minimum of five decimal places).

iv) Ag drainage turbidity sampling sites do not need to be identified and are reported by anonymous location ID and aggregated at the HUC-12 level.

v) The map(s) must contain a level of detail that ensures they are informative and useful. The datum must be clearly identified on the map. The source and date of all data layers must be identified on the map(s). All data layers/shapefiles/geodatabases included in the map shall be submitted with the Annual Monitoring Report.

j) Results of all analyses arranged in tabular form so that the required information is readily discernible. In reporting monitoring data, the Third-Party Group shall arrange the data in tabular form so that the required information is readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the data collection requirements of the MRP.

k) The report shall include a discussion of the Third-Party Group's compliance with the data collection requirements of the MRP. If a required component was not met, an explanation for the missing data must be included. Results must also be compared to water quality objectives and trigger limits.

l) Sampling and analytical methods used.

m) Summary of Quality Assurance Evaluation results (as identified in the most recent version of the Third Party's approved QAPP):

i) A summary of precision and accuracy of results (both laboratory and field) is required in the report. Acceptance criteria for all measurements of precision and accuracy must be identified. The Third-Party Group must review all quality assurance/quality control (QA/QC) results to verify that protocols were followed and identify any results that did not meet acceptance criteria.

ii) A summary table or narrative description of all QA/QC-verified results that did not meet water quality objectives must be included. Additionally, the report must include a discussion of how the failed QA/QC results affect the validity of the reported data and the corrective actions to be implemented.

iii) The Third-Party Group shall calculate report completeness which includes the percentage of all quality control results that meet acceptance criteria, as well as a determination of project completeness.

iv) The Third-Party Group may ask the laboratory to provide assistance with

evaluation of their QA/QC data, provided that the Third-Party Group prepares the summary table or narrative description of the results for the AMR.

o) Summary of exceedances of water quality objectives or trigger limits occurring during the reporting period and for surface water-related pesticide use information. A summary of the exceedances of water quality objectives or triggers that have occurred during the monitoring period is required in the Trend Monitoring Report. In the event of exceedances of water quality objectives for pesticides or an increasing trend of pesticide concentration in any monitoring location, local pesticide use data must be included in the Trend Monitoring Report. Pesticide use information may be acquired from the county agricultural commissioner.

p) Actions taken to address water quality exceedances that have occurred, including but not limited to, revised or additional management practices implemented.

q) Evaluation of monitoring data to identify spatial trends and patterns:

i) The Third-Party Group must evaluate its monitoring data in the Trend Monitoring Report to identify potential trends and patterns in surface water and groundwater quality that may be associated with waste discharge from commercial vineyards. As part of this evaluation, the Third-Party Group must analyze all readily available monitoring data that meet quality assurance requirements to determine deficiencies in monitoring for discharges from commercial vineyards and whether additional sampling locations are needed.

r) If deficiencies are identified, the Third-Party Group must propose a schedule for additional monitoring or source studies. Upon notification from the Executive Officer, the Third-Party Group must monitor any parameter in a watershed that lacks sufficient monitoring data (i.e., a data gap should be filled to assess the effects of discharges from commercial vineyards on water quality). Wherever possible, the Third-Party Group should utilize tables or graphs that illustrate and summarize the data evaluation.

s) Conclusions and recommendations.

D. Groundwater Protection Plan

1) By **July 1st**, seven years following initial INMP reporting, the Third-Party Group may choose to submit a Groundwater Protection Plan that identifies a methodology for determining outliers of Nitrogen Applied and Nitrogen Removed (AR), establishes a nitrogen removal coefficient (CN) and proposes groundwater protection formulas and targets.

2) In the first reporting cycle following approval of the Groundwater Protection Plan, the Third-Party Group shall identify the entries in Table 1 of the INMP Data submittal in Section VII.C.3 of this MRP that Third-Party Group considers to be outliers for the AR data, and which are subject to follow up actions as described in Section II.C.3 of the Order.

3) Groundwater Protection (GWP) Formula and Targets: In the Groundwater Protection Plan, the Third-Party Group may propose a Groundwater Protection Formula (GWP Formula) to the Executive Officer. The purpose of the GWP Formula is to generate a Groundwater Protection Value (GWP Value), expressed as either a nitrogen loading number or a concentration of nitrate in water (e.g., mg/l) as appropriate, reflecting the total applied nitrogen, total removed nitrogen, recharge conditions, and other relevant and scientifically supported variables that influence the potential average concentration of nitrate in water expected to reach groundwater in a given township over a given time period. The Third-Party shall use the GWP Formula to compute GWP Values for each township in high vulnerability areas. The GWP Values shall be subject to public review and comment and Executive Officer approval. GWP Values shall be developed and included in an updated Groundwater Protection Plan no later than one year from Executive Officer approval of the GWP Formula.

4) Groundwater Protection (GWP) Targets by Township: The first year following approval of the GWP Values, the Third-Party Group shall develop Groundwater Protection Targets (GWP Targets) for each township for which a GWP Values was computed the prior year. The purpose of the GWP Targets is to set a Nitrogen Applied and Removed (A/R or A-R value) that results in a nitrogen discharge to groundwater that is compliant with the Antidegradation Policy and meets the water quality objective. The GWP Targets shall be influenced by the trend groundwater monitoring Third-Party Group. The GWP Targets shall be reviewed and subject to approval by the Executive Officer after an opportunity for public review and comment. The GWP Targets shall be reviewed and revised as necessary every five years.

5) C_N Removal Coefficient: Total Nitrogen Removed is determined, by multiplying a Discharger's crop yield by a crop-specific nitrogen coefficient (C_N) which represents the amount of nitrogen in the harvested crop. The Third-Party Group may propose a C_N coefficient determined through nitrogen removed testing, literature review or recent research for converting crop yield to nitrogen removed.

6) Nitrogen Applied and Removed (AR) Outlier Determination: The Third-Party Group may propose a methodology for determining statistical outliers in nitrogen application and removal rates by township. The purpose of AR Outlier determination and notification is to identify Dischargers who may be contributing to nitrate leaching to groundwater. Dischargers identified as AR Outliers will need their INMPs certified by an irrigation and nitrogen specialist in accordance with Section II.C.3 of this Order.

7) The Third-Party Group shall notify the Regional Water Board by **January 1** prior to the Groundwater Protection Plan submission deadline if they do not plan to submit a Groundwater Protection Plan. In that case, the Regional Water Board will provide the methodology for determining AR outliers, and will establish groundwater protection formulas, targets, and C_N coefficients.

Attachment C: Third-Party Group Requirements

I. General Provisions for Third-Party Programs

1) A Third-Party Group that is approved to represent Dischargers under this Order shall fulfill the following responsibilities:

    a) Collect fees from enrolled Dischargers and submitting payment to the State Water Resources Control Board,

    b) Manage communications between enrolled Dischargers, the Regional Water Board, and State Water Board,

    c) Provide outreach and education resources for enrolled Dischargers; and

    d) Fulfill monitoring and reporting requirements as specified in Attachment B: Monitoring and Reporting Program for Dischargers Enrolled in a Third-Party Group on behalf of its enrolled Dischargers, including but not limited to submitting monitoring workplans and necessary technical material, conducting regional surface water and groundwater monitoring, notifying Dischargers of adaptive management thresholds triggered[139], and connecting enrolled Dischargers to resources that can assist the preparation and implementation of Water Quality Management Plans (required in Section II.C.5 of this Order).

2) The Third-Party Group may work with multiple entities or programs to meet one or more of the above requirements provided the Third-Party has binding agreements (e.g., through contractual obligations, Memorandums of Agreement) that clearly define roles and responsibilities within each entity in order to meet all Third-Party requirements.

3) The Regional Water Board may revoke Third-Party status of an approved Third-Party applicant and require its enrolled Dischargers to enroll individually or enroll in an alternative Third-Party Group if the Third-Party Group fails to meet requirements of this Order after initial approval.

4) Prospective Third-Party entities shall follow the procedures outlined below in Section III to become an approved Third-Party applicant for this Order. New Third-Party Group(s) shall obtain written approval from the Regional Water Board's Executive Officer prior to assisting Dischargers with compliance with this Order.

II. Minimum Qualifications

Third-Party Group(s) wishing to act as a representative on behalf of enrolled

[139] See Section II.G of the Order for a list of adaptive management thresholds triggers.

Attachment C:
Third Party Requirements

Dischargers shall meet the minimum qualifications below:

1) Effectiveness of scale and scope – The Third-Party Program must be of sufficient scale and scope relative to its intended purpose to maximize Discharger participation, Order implementation effectiveness, and Order compliance. Although regionally scaled programs are preferred, watershed-, basin-scale or county-scale programs will be considered as needed.

2) Administrative Capacity – The Third-Party Group must have a well-defined and robust governance and administrative structure with clearly defined roles and responsibilities. The Third-Party Group must have necessary administrative capabilities to manage Discharger data, collect fees, conduct Discharger outreach, and assist Discharger with self-reporting requirements. The Third-Party must demonstrate sufficient technical, managerial, and financial capacity to successfully achieve its goals and objectives.

3) Membership and fee accounting – The Third-Party Group must track and provide ongoing accounting of its Discharger membership and fees to document Discharger compliance. The Third-Party Group must have clearly stated membership eligibility requirements and report out on them as needed to document compliance.

4) Physical presence – The Third-Party Group should have a physical presence in the North Coast Region, including staff and a headquarters that can assist its Dischargers on a continual and as-needed basis. If the Third-Party Group administrator does not have or plan to have a physical presence in the region, they must demonstrate they can effectively establish, maintain, and engage with core membership without a headquarters in the North Coast Region.

5) Transparency and accountability – The Third-Party Group must have meaningful and clearly stated goals, objectives, and associated performance metrics relevant to the Order requirements that are the focus of the program. The Third-Party must provide regular assessments of its performance relative to its stated goals and objective based on meaningful performance metrics. This includes reporting of water quality data and farm-level data as needed to document compliance with this Order.

6) Data management and Record Keeping – The Third-Party Group must upload data as required by this Order to the Water Boards' various data management systems (e.g., CEDEN, GeoTracker, etc.). The Third-Party Group must have the capacity to manage and retain data for ten years and comply with record-keeping requirements in Section II.E (Provisions) of the Order.

7) Coordination – The Third-Party Group must consider and coordinate with other Third-Party programs/groups or local entities as may be appropriate to create consistency; leverage the efforts, infrastructure, and expertise of others; and streamline the Third-Party Group to maximize effectiveness.

8) Outreach and Education – The Third-Party Group must include continuing education opportunities as appropriate either directly through the Third-Party Program or through coordination with other technical service providers or local entities to ensure its Dischargers obtain technical skills and assistance necessary to achieve compliance with the limits and requirements established in this Order. The Third-Party Group must conduct Membership outreach and education to inform Dischargers about the monitoring results relative to meeting objectives and goals of this Order.

9) Development of Required Technical Material – The Third-Party Group must have capability to develop and implement, or contract detailed technical documents as specified in Attachment B of the Order including, but not limited to: Water Quality Monitoring Workplan(s), Trend Monitoring Reports, a Quality Assurance Project Plan (QAPP), annual water quality and management practices reporting, and Groundwater Protection Plan(s).

10) Conducting Water Quality Monitoring – The Third-Party Group must have the capability to develop or contract group surface water and groundwater quality monitoring programs in accordance with the requirements in Sections III and IV of the Attachment B of the Order

III. Request for Proposal Process and Establishing Approved Third-Parties Groups

1) Within three months after adoption of the Order, the Regional Water Board will release a Request for Proposals (RFP). Third-Party Group applicants shall apply within the stated deadline of the RFP to be considered.

2) Third-Party program proposals will be evaluated on a case-by-case basis relative to their ability to document compliance with this Order as part of a request for proposal process and as further informed by a forthcoming Third-Party program expectations document.

3) The Regional Water Board's review of Third-Party program proposals will consider the Minimum Qualifications outlined above relative to overall Third-Party program effectiveness, with an emphasis on approving Third-Party Groups that can effectively assist their Dischargers in complying with the requirements of this Order.

4) Included in the RFP submittal, the Third-Party Group applicant shall submit documentation of its organizational or management structure. The documentation shall identify persons and/or entities responsible for ensuring that Third-Party program requirements are fulfilled. This documentation shall be made readily available to Dischargers.

5) In evaluating whether to approve a new Third-Party Group, the Executive Officer will consider the following factors:

a) The ability of the Third-Party Group applicant to carry out the identified Third-Party Program responsibilities.

b) Whether the Third-Party Group applicant is a legally-defined Third-Party applicant (i.e., non-profit corporation; local or state government; Joint Powers Authority) or has a binding agreement among multiple entities that clearly describes the mechanisms in place to ensure accountability to its Dischargers.

c) If the Third-Party Group applicant plans to use subsidiary group(s) or partnering entities to assist with Third-Party program requirements, whether the Third-Party applicant has binding agreements with those entities to ensure any Third-Party program responsibilities carried out by the entities, including the collection of fees, are done transparently and with accountability.

d) Whether the Third-Party Group applicant has a governance structure that includes a governing board of directors composed in whole or in part of Dischargers, or otherwise provides Dischargers with a mechanism to direct or influence the governance of the Third-Party applicant through appropriate by-laws.

e) Whether the Third-Party Group applicant has membership eligibility requirements and follow-up consequences that are triggered, including revocation of membership eligibility, to address the following scenarios where Dischargers are no longer in good standing: (1) Non-payment of fees; (2) Non-submittal of information; (3) Non-participation in education/outreach or site visits; or (4) Failure to implement / adapt management practices.

6) If the Executive Officer determines that the Third-Party Group applicant has the capacity to satisfactorily carry out the Third-Party responsibilities, the Regional Water Board's Executive Officer will issue a letter of approval and, if appropriate, a Monitoring and Reporting Program specific to the new Third-Party Group and its Dischargers. The new Third-Party shall comply with the relevant terms and conditions of this Order and any applicable Monitoring and Reporting Program upon receipt of the letter of approval.

IV. Third-Party Program Requirements

1) Approved Third-Party Groups shall comply with all requirements of Third-Party Groups as outlined in the Order and Attachment B: Monitoring and Reporting Program for Dischargers Enrolled in a Third-Party Group.

2) Approved Third-Party Groups shall be prepared to accept Discharger enrollments by **July 1, 2025**.

3) By **July 1, 2026,** and annually thereafter, the Third-Party shall submit to the Regional Water Board a list of all its current enrolled Dischargers. The list shall specifically identify any new Dischargers, or any Dischargers terminated since the last reporting period. As part of the membership list submittal, the Third-Party Group shall identify Dischargers who have failed to fulfil the requirements of this Order as specified in Attachment B: Section VII.C.1.

4) By January 1, 2027, the Third-Party Group shall submit a scope of work for a Water Quality Monitoring Workplan. By **July 1, 2027**, the Third-Party Group shall submit a Water Quality Monitoring Workplan (Workplan) in accordance with Attachment B: Section II.

5) The Third-Party Group shall respond promptly to Regional Water Board requests for any of the information the Third-Party groups are required to maintain, which may include but is not limited to: (1) Discharger contact information; (2) Discharger reports (e.g., Farm Evaluations, INMPs), (3) outreach and education attendance lists, and (4) water quality monitoring locations

Attachment D: CEQA Mitigation Measures

The following mitigation monitoring and reporting program (MMRP) summary table includes the mitigation measures identified in the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) draft environmental impact report (EIR) for the proposed Order project in accordance with the California Environmental Quality Act (CEQA). For each mitigation measure, this table identifies monitoring and reporting actions that must be carried out and the monitoring schedule.

Dischargers are responsible for complying with all mitigation measures in the final EIR and this MMRP summary table. Enrollees must determine whether their proposed activities (e.g., management practices) are subject to individual mitigation measures and, if applicable, take the necessary actions to ensure the mitigation measures are fully implemented. In some cases, this may involve hiring a professional (e.g., biologist, archaeologist) and becoming familiar with applicable laws and regulations.

Dischargers who enroll individually in the Order must report their compliance with mitigation measures in the Annual Compliance Report (ACR), which is submitted as part of their overall compliance reporting for the Order. The Third-Party Group shall submit this information to the Regional Water Board on behalf of its enrolled Dischargers. As the CEQA Lead Agency, the Regional Water Board is ultimately responsible for ensuring compliance with the mitigation measures identified in the Final EIR. The Regional Water Board will accomplish this through review of ACRs to confirm that reported actions fully meet the requirements of the applicable mitigation measures. The Regional Water Board will also confirm mitigation measure compliance during periodic inspections of individual vineyards.

The MMRP will be made available to enrollees, and they may use the checklist to help document their compliance with applicable mitigation measures. The Regional Water Board may also use the MMRP checklist to confirm and document compliance.

Attachment D:
CEQA Mitigation Measures

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
Agriculture and Forestry Resources				
None.				
Air Quality				
None.				
Biological Resources				
BIO-1	Where construction in areas that may contain sensitive biological resources cannot be avoided through the use of alternative management practices, conduct an assessment of habitat conditions and the potential for presence of sensitive vegetation communities or special-status plant and animal species prior to construction. This may include the hiring of a qualified biologist to identify riparian and other sensitive vegetation communities and/or habitat for special-status plant and animal species. When conducting maintenance or repair on facilities such as sediment basins, vegetated buffers, or other facilities that may provide habitat for species, ensure that such activities will not disturb any special-status species	Confirm that the least impactful effective management practice is selected to avoid impacts to biological resources. (Enrollee) Where areas potentially containing sensitive biological resources cannot be avoided, confirm performance of habitat and species assessment. (Enrollee) Confirm that maintenance or repair activities will not disturb any special-status species. (Enrollee) For activities proposed during nesting season, confirm performance of	During design of management practice(s). Prior to construction / installation of management practice(s), if applicable. Prior to undertaking proposed activity. Prior to undertaking proposed activity, if applicable. Prior to undertaking any construction / installation or other activities that could adversely affect sensitive biological resources.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	that may be present. If conducting maintenance or repair activities during the nesting season (generally February 1 to August 31), inspect the facilities to ensure that nesting birds are not present within or adjacent to areas where such activities will occur. If nests or young are identified in such areas, conduct the activities outside of the nesting season. Where adverse effects on sensitive biological resources cannot be avoided, undertake additional CEQA review and develop a restoration or compensation plan in consultation with the California Department of Fish and Wildlife to mitigate the loss of the resources.	survey for nesting birds and avoidance of nests / young. (Enrollee) In the event avoidance of sensitive biological resources is not feasible, confirm additional CEQA review and appropriate consultation with CDFW. (Enrollee & NCRWQCB)		
Cultural Resources				
CUL-1 And CUL-2	Cultural Resources Inventory, Evaluation of Resources for Significance, and Implementation of Avoidance and/or Minimization Measures. For proposed actions or management practices that involve modifications	Confirm that the measure is included in contract documents, if any. (Enrollee) Confirm that construction workers are fully aware of all requirements pertaining to cultural	During preparation of contract and specifications. Prior to construction / installation of applicable management practices. Prior to construction / installation of	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	to previously undisturbed soils (i.e., below the levels of current agricultural practices, or in areas that have not previously been cultivated or developed) or a structure that may qualify as a historical resource, the following steps must be taken to avoid and/or reduce potential impacts on significant cultural resources: The enrollee or third-party must retain an archaeologist who meets the U.S. Secretary of Interior's professional standards as an archaeologist to conduct a records search at the regional Information Center of the California Historical Resources Information System (CHRIS). The record search must determine if cultural resources have previously been identified in the proposed disturbance area and whether the proposed disturbance area has previously been subject to archaeological pedestrian survey. The professional archaeologist must contact the NAHC to	resources and receive basic training on how to identify potential cultural resources. (Enrollee) For applicable activities, confirm retention of a qualified archaeologist to conduct a records search, contact tribes, and conduct pedestrian survey, as necessary. (Enrollee) Confirm any identified archaeological sites, and historic buildings and structures, are recorded on proper forms. (Enrollee) If historical resource(s) are identified within the proposed disturbance area, confirm avoidance of those resource(s) to the extent feasible. (Enrollee) If historical resource(s) cannot be avoided, confirm preparation of a data recovery plan and submittal to	applicable management practices. Prior to construction / installation of applicable management practices. Prior to construction / installation of applicable management practices. Prior to construction / installation of applicable management practices. Prior to commencement of any excavation activities. During and potentially after construction / installation, if applicable. During construction / installation, if necessary. During construction / installation, if necessary.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	request a search of the Sacred Lands files and a list of tribes with a traditional and cultural affiliation with the proposed disturbance area. The archaeologist must contact the tribes identified by the NAHC to request information about sites and resources that may not have been identified during the record search process, including TCRs, and whether the tribes have any concerns about the proposed action. If a pedestrian survey has not previously been conducted on the property, a survey must be conducted by a qualified archaeologist. All identified archaeological sites and historic buildings and structures must be recorded on California Department of Parks and Recreation 523 Site Record forms. A Historic Resources Identification Report must be prepared to document the findings of the study; the report must be submitted to the NCRWQCB and the CHRIS Information Center. If the property has been subject to	NCRWQCB. (Enrollee) Confirm that submitted data recovery plan adequately provides for recovery of scientifically important information about historical resource(s) to be impacted, and that consulting tribes are provided opportunity to review. (NCRWQCB) If approved, confirm that data recovery plan is properly and fully implemented. (Enrollee) In the event that cultural resources are encountered, ensure that work stops immediately. (Enrollee) Ensure all accidentally discovered cultural resources are evaluated for inclusion in the CRHR and that avoidance measures or appropriate mitigation measures are implemented for historical resources.		

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	previous study, additional survey is not required if no cultural resources, including TCRs, were identified during the study and the age and adequacy of the report are considered sufficient by the consulting archaeologist for the purposes of the present project. The report from the previous survey can then be used to satisfy the CEQA requirements for historical resources. If the property has been subject to previous survey and a cultural resource has been identified within the proposed disturbance area, a qualified archaeologist must conduct a pedestrian survey to assess the current condition of the resource relative to the proposed action. If cultural resources are identified either by the record search or pedestrian survey, the qualified archaeologist must evaluate the significance of archaeological resources, per the State Water	(Enrollee)		

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	Board guidelines140. Note that buildings that would be impacted by the proposed action would require evaluation for California Register of Historical Resources (CRHR) eligibility by a qualified architectural historian. If the cultural resource(s) are determined to be historical resource(s) (i.e., listed or eligible for listing in the CRHR), the enrollee or third-party, in coordination with the qualified archaeologist, must avoid impacting the resource(s) to the extent feasible. This would include relocating or redesigning proposed management practice(s) such as to avoid the resource or leaving structures in place in setback areas or otherwise preserving structure(s) that are listed or eligible for listing. If the historical resource(s) cannot be completely avoided, the qualified archaeologist must			

[140] Guidelines for Applicants and their Consultants on Preparing Historic Property Identification Reports for the Clean and Drinking Water State Revolving Fund Programs. Revised 9/12/19. While these guidelines were developed for other State Water Board programs, they provide protocols that can generally be applied to other programs where cultural resources must be addressed.

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	develop and implement a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource(s) that may be impacted by the proposed activity. The data recovery plan must be prepared and submitted to NCRWQCB for approval, and the data recovery plan must be approved by NCRWQCB prior to any excavation taking place that may impact the resource(s). NCRWQCB must ensure that data recovery plans for Native American archaeological sites have the opportunity to be reviewed by consulting tribes. Archaeological sites known to contain human remains must be treated in accordance with the provisions of section 7050.5 of the Health and Safety Code (see Mitigation Measure CUL-3). For any artifacts removed during project excavation or testing, the professional archaeologist must provide for the curation of such artifact(s). For structure(s) evaluated as a historical resource(s)			

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	that cannot be avoided, reconstruction of the structure(s) at an offsite location, consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings, may be an appropriate minimization measure that may be implemented in addition to, or as part of, the data recovery plan. Provisions must be made by the enrollee or third-party for the accidental discovery of historical or unique archaeological resources during construction of applicable management practices, pursuant to CEQA Guidelines 15064.5(f). If cultural resources[141] are uncovered during construction, work must immediately cease within 50 feet of the finds and the materials must be evaluated by a qualified			

[141] Native American archaeological materials or indicators may include, but are not limited to, arrowheads and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars, and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone, fire affected stones, shellfish, or other dietary refuse. Historic era archaeological materials may include, but not be limited to: adobe or fired brick; metal objects such as nails, hinges, machine parts, etc.; household wares such as pottery or glass artifacts or shards; tin cans; milled lumber, etc.

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	archaeologist. If the finds are determined to be a historical or unique archaeological resource, avoidance measures or appropriate mitigation (e.g., data recovery, documentation, and curation) must be implemented.			
CUL-3	Comply with State Laws Pertaining to the Discovery of Human Remains. If human remains are discovered during construction, the requirements of Health and Safety Code section 7050.5 must be followed. Potentially damaging excavation must halt on the construction site within a minimum radius of 100 feet of the remains, and the county coroner must be notified. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code section 7050.5[b]). If the coroner determines that the remains are those of a Native American, the NAHC must be contacted by phone within 24 hours	Confirm that measure is incorporated in contract documents, if any. (Enrollee) Confirm that construction workers are fully aware of all requirements pertaining to human remains. (Enrollee) In the event that human remains are encountered, confirm that work is stopped immediately and California Health and Safety Code requirements are followed and the county coroner is contacted. (Enrollee) Confirm that any discoveries of human remains are evaluated and addressed properly as outlined in the measure. (Enrollee)	During preparation of contract and specifications. Prior to construction / installation of management practices or other activities involving ground disturbance. During construction / installation, if applicable. During construction / installation, if applicable.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	of making that determination (California Health and Safety Code section 7050[c]). Pursuant to the provisions of PRC section 5097.98, the NAHC must identify a most likely descendent (MLD). The MLD designated by NAHC must have at least 48 hours to inspect the site and propose treatment and disposition of the remains and any associated grave goods. The enrollee must work with the MLD to ensure that the remains are removed to a protected location and treated with dignity and respect. Ground disturbing activities must not resume until these requirements are met.			
Geology				
GEO-1	Comply with State Laws Pertaining to the Discovery of Paleontological Resources. If any items of paleontological interest are discovered during construction of management practices or other activities (e.g., installation of monitoring wells), work must be	Confirm that the measure is incorporated into contract documents, if any. (Enrollee) Confirm that construction workers are fully aware of all requirements pertaining to the discovery of paleontological resources and	During preparation of contract and specifications. Prior to construction / installation of management practices or other activities involving ground disturbance. During construction / installation of management	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	immediately suspended within 50 feet of the discovery site, or to the extent needed to protect the site. Discovered paleontological resources must be evaluated by a qualified paleontologist who meets the Society for Vertebrate Paleontology's professional requirements. If it is determined that the activities could damage a unique paleontological resource, mitigation must be implemented in accordance with PRC section 21083.2 and section 15126.4 of the State CEQA Guidelines. If avoidance is not feasible, the paleontologist must develop a treatment plan in consultation with NCRWQCB. Work must not be resumed until authorization is received from NCRWQCB and any recommendations received from the qualified paleontologist are implemented.	receive basic training on how to identify potential paleontological resources. (Enrollee) In the event paleontological resources are identified during excavation and related activities, confirm that work stops immediately. (Enrollee) If needed, confirm that a qualified paleontologist is retained to evaluate discovered resources. (Enrollee) If unique paleontological resource(s) are identified and may be impacted, confirm that qualified paleontologist implements appropriate mitigation and/or develops a treatment plan in consultation with NCRWQCB, as appropriate. (Enrollee) Confirm treatment plan and mitigation approach are appropriate and	practices or other ground- disturbing activities. Prior to resuming work activities in affected area. Prior to resuming work activities in affected area. Prior to resuming work activities in affected area.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
		sufficiently avoid or minimize impacts to unique paleontological resource(s). (NCRWQCB)		
Greenhouse Gas Emissions				
None.				
Hazards and Hazardous Materials				
HAZ-1	Hazardous Materials Spill Prevention, Control, and Counter-Measures for Land Disturbance Activities. Enrollees or their contractors must maintain/implement the following: A list of hazardous materials present on site during construction, to be updated as needed along with product safety data sheets and other information regarding storage, application, transportation, and disposal requirements; A hazardous materials communication plan, which lists contacts for emergency services, hazardous materials spill response agencies, and wildlife agencies, as well as protocols for communication in the	Confirm that measure is included in contract documents, if any. (Enrollee) Confirm list of hazardous materials, standards for secondary containment, and spill response procedures are on site/documented. (Enrollee) Confirm preparation of a hazardous materials communication plan that includes all information identified in the mitigation measure. (Enrollee)	During preparation of contract and specifications. Prior to land disturbance activities. Prior to land disturbance activities.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	event of a spill; Standards for secondary containment of hazardous materials stored on site; Spill response procedures based on product and quantity. The procedures must include spill response/clean-up materials to be used, location of such materials within the construction site, and disposal protocols.			
HAZ-2	Review Proximity to Existing Known Hazardous Materials Cleanup Sites and Conduct an Environmental Site Assessment if Proposed Activity Is Located on or in Close Proximity to an Area of Hazardous Materials Contamination. Enrollees proposing construction/installation of management practices involving excavation or ground disturbance must evaluate the proximity of proposed management practices to existing known hazardous material cleanup sites. Prior to final design, enrollees, or their contractors, must review the planned management	For applicable activities, confirm applicable databases (i.e., GeoTracker and EnviroStor) are consulted prior to final design. (Enrollee) If applicable, confirm Phase I and/or Phase II ESAs are commissioned, per requirements identified in this measure. (Enrollee) Confirm that construction is conducted in accordance with recommendations of the Phase II ESA, if applicable. (Enrollee)	Prior to final design of management practices involving excavation or ground disturbance. Prior to final design of applicable management practices. During construction / installation of applicable management practices. During construction / installation of applicable management practices.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	practice footprint in relation to records of hazardous materials sites in the State Water Board's GeoTracker database and the California Department of Toxic Substances Control's EnviroStor database. If the proposed management practice is located on or within 100 feet of a documented hazardous material contamination site, for which cleanup activities have not been completed or been successful, the enrollee or its contractor must commission a Phase I environmental site assessment (ESA) to more fully characterize the past land uses and potential for soil and/or groundwater contamination to occur at or in close proximity to the site. If the Phase I ESA demonstrates a reasonable likelihood that contamination remains within the management practice's area of disturbance, the enrollee or its contractor must commission a Phase II ESA, including	Confirm proper disposal of contaminated soil/hazardous materials during construction, per applicable laws. (Enrollee)		

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	soils testing, to characterize the extent of the contamination and develop ways to avoid the contaminated areas during management practice design and construction. The enrollee and/or its contractor must follow all recommendations of the Phase II ESA and, to the extent feasible, design the management practice to avoid areas of contamination. In the event that it is not feasible to avoid all areas of contamination, the enrollee and/or its contractor must follow all applicable laws regarding management of hazardous materials and wastes. This includes proper disposal of any contaminated soil in a hazardous waste landfill and ensuring that workers are provided with adequate personal protective equipment to prevent unsafe exposure.			
Hydrology and Water Quality				
HWQ-1	Implement Construction Best Management Practices for Erosion Control. Where construction of management practices	Confirm that BMPs are included in contract documents, if any. (Enrollee) Confirm that all BMPs are	During preparation of contract and specifications. During construction / installation of applicable	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	would not be subject to the Construction General Permit or local grading ordinance, enrollees must implement the following measures during construction of the improvements, or must implement alternative measures that are demonstrated to be equally or more effective: Implement practices to prevent erosion of exposed soil and stockpiles, including watering for dust control, establishing perimeter silt fences, and/or placing fiber rolls. Minimize soil disturbance areas. Implement practices to maintain water quality, including silt fences, stabilized construction entrances, and storm drain inlet protection. Where feasible, limit construction to dry periods. Revegetate disturbed areas. The performance standard for these erosion control measures is to use the best available technology that is economically achievable. These measures may be	implemented fully, and that erosion control measures use the best available technology that is economically achievable. (Enrollee)	management practices.	

Mitigation Measure		Monitoring and Reporting Action (Responsible Party)	Monitoring Schedule	Completion Date and Initials
	included in SWPPP requirements, as appropriate.			
HWQ-2	Place Management Practices that Involve Retention and/or Treatment of Surface Runoff Outside of 100-Year Floodplains or Tsunami or Seiche Inundation Zones. To the extent feasible, Dischargers must place structural management practices that involve retention or treatment of runoff outside of Federal Emergency Management Agency-designated 100-year floodplains or identified tsunami or seiche inundation zones. Where seiche inundation zones have not been mapped, enrollees should use good judgment in not placing structural management practices for sediment retention in areas immediately adjacent to large standing waterbodies that could be inundated during a seiche event.	Confirm that applicable management practices are not located within 100-year floodplains, tsunami or seiche inundation zones. (Enrollee)	During design of applicable management practices.	
Tribal Resources				
TRI-1	See Cultural Resources (CUL-1 through CUL-3) above.			

Attachment E: Templates

PLACEHOLDER. Templates will be developed later.