CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)
INITIAL STUDY
FOR
GENERAL WASTE DISCHARGE REQUIREMENTS
FOR
VINEYARD PROPERTIES IN
THE NORTH COAST REGION

PREPARED BY:

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TABLES

FIGURES

I. PROJECT BACKGROUND

North Coast Regional Water Quality Control Board (Regional Water Board) staff intend to recommend that the Regional Water Board adopt General Waste Discharge Requirements (WDRs) for Vineyard Properties located in the North Coast Region (Vineyard Permit). The North Coast Region has an estimated 250,000 acres dedicated to agriculture land-use. As shown in Figure 1, greater than 75,000 acres are planted in wine grapes, from which there are, or may be discharges of sediment, agrochemicals, and concentrated stormwater runoff that affect water quality.

The Vineyard Permit will regulate discharges from Vineyard Properties[1] implementing the plans, policies, and requirements set forth in the Water Quality Control Plan for the North Coast Basin (Basin Plan), including applicable Total Maximum Daily Loads (TMDLs), and the State Water Resources Control Board (State Water Board) Irrigated Lands Regulatory Program (ILRP) objectives and precedential requirements[2]. Developing the Vineyard Permit fulfills the objective of the Nonpoint Source Policy[3], which requires a permit, prohibition, or waiver for nonpoint source activities, and achieves the goal of adopting WDRs for Vineyards as identified in the 2020-2025 Nonpoint Source Program Implementation Plan[4]. Additionally, the Vineyard Permit will implement the TMDL Policy Statement for Sediment-Impaired Receiving Waters in the North Coast Region (Sediment Policy) and The Policy for the Implementation of the Water Quality Objective for Temperature (Temperature Policy), which are contained withing Chapter 4 of the Basin Plan. In addition to the technical analysis supporting the Sediment and Temperature Polices, numerous technical TMDLs[5] identify

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[1] A "Vineyard Property" is defined by a parcel or contiguous parcels under the same ownership, each of which has been developed to include a vineyard and includes the Vineyard Facility as well as all roads on the property. A "Vineyard Facility includes the permanent, semi-permanent, or temporary physical features of a vineyard, such as land, crops, drainage systems, roads, reservoirs, diversion structures/equipment, etc., that are established or maintained for the purpose of growing grapes. The Vineyard Facility does not include winery facilities subject to an industrial stormwater permit or other WDRs or conditional waivers of WDRs.

[2] The State Water Resources Control Board's Irrigated Lands regulatory program precedential requirements as set forth in State Water Board WDRs General Order No. WQ-2018-0002 for Growers Within the Eastern San Joaquin River Watershed that are Members of the Third-Party Group.

[3] https://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/nps_iepolicy.pdf

[4] https://www.waterboards.ca.gov/water_issues/programs/nps/docs/plans_policies/NPS%202020-25%20Accessible%20MH%203.9.21.pdf

[5] Vineyards are identified as 1) potential sediment sources, and 2) a land use that alters streamside vegetation affecting stream temperatures that can contribute to impairments in the following watersheds: Albion River Sediment TMDL; Big River Sediment TMDL; North Fork Eel

Vineyards as nonpoint source activities that contribute to watershed impairments.

II. INTRODUCTION

This Initial Study has been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA), and State CEQA Guidelines at California Code of Regulations (CCR), Title 14, Div. 6, Chap. 3. The Lead Agency for the project, as defined by CEQA, is the Regional Water Board.

Vineyard operations can pose threats to surface water and groundwater and the beneficial uses that rely on these waters. Stormwater runoff can result in soil erosion and contribute excess sediment to nearby streams and may also exhibit the potential to carry additional pollutants adhered to soil particles, such as agricultural pesticides and fertilizers to receiving waters. The removal and suppression of shade-providing trees and vegetation along watercourses can result in increases to in-stream temperatures, a reduction to the sediment and pollutant trapping potential that these areas provide, and insufficient habitat or food for critical species.

The proposed project consists of establishing a regulatory mechanism, in the form of a Vineyard Permit, to regulate pollutant discharges and related controllable water quality factors to effectively attenuate significant increases in stormwater runoff and suppression of shade producing vegetation to minimize the potential for pollutant loading and effects to controllable water quality factors from existing, replanted, and future Vineyard Properties in the North Coast Region.

The project is consistent with the State Water Resources Control Board's 2004 Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy), which requires that all sources of nonpoint source pollution be regulated through WDRs, waivers of WDRs, and/or prohibitions.

This Initial Study analysis considers the potential environmental impacts of the reasonably foreseeable methods of compliance, and the mitigation measures which would be implemented in accordance with the Vineyard Permit to avoid, minimize, or mitigate the identified impacts including:

River Sediment TMDL; Upper Main Eel River Sediment and Temperature TMDLs; Middle Main Eel River Sediment and Temperature TMDLs; Middle Fork Eel River Sediment and Temperature TMDLs; Lower Main Eel River Sediment and Temperature TMDLs; Garcia River Sediment TMDL; Gualala River Sediment TMDL; Laguna de Santa Rosa Nutrients, Dissolved Oxygen; Temperature, Sedimentation, Indicator Bacteria TMDLs; Navarro River Sediment and Temperature TMDLs; Noyo River Sediment TMDL; Ten Mile River Sediment TMDL; Trinity River Sediment TMDL; Regional Sediment Policy; and Regional Temperature Policy

1. Implementation of best management practices (BMPs) and changes in Vineyard Property activities that may be employed by Landowners/Operators[6] to comply with the Vineyard Permit, and
2. Environmental changes resulting from long-term compliance with the Vineyard Permit.

The adoption of the Vineyard Permit may result in indirect adverse effects on the environment with respect to potential conversion of agricultural resources from agricultural use to naturally vegetated streamside protection areas, otherwise known as riparian setbacks. All potentially adverse effects would be related to individual site-specific projects and site-specific compliance measures resulting from the implementation of the Vineyard Permit. The analysis provided within this Initial Study uses site-specific circumstances as examples of how the Vineyard Permit could be implemented, and the potential impacts to the environment. However, the analysis does not constitute an absolute outcome or certainty in the determinations made. Some impacts may not be identified or mitigated through this Permit, because it is not possible to exactly predict who will take action in response to the Vineyard Permit, or what action(s) they will take. Therefore, this analysis is set at a programmatic level and is more general in nature to cover the range of potential effects.

The types of actions that would be undertaken by Landowners/Operators subject to the Vineyard Permit would be consistent with commonly used and effective vineyard BMPs that have already been employed. Many of the projects that might be undertaken by affected persons as a result of the Vineyard Permit may be subject to a project-level CEQA by another local lead agency, which would entail identification and mitigation of any significant environmental effects. Therefore, other regulatory mechanisms can be expected to provide additional opportunities for minimizing and avoiding significant environmental effects. These regulatory requirements and mitigation measures are likely to reduce many, but not all, of the potential indirect impacts to less than significant levels. In some cases, it may not be possible to mitigate the indirect impacts of the Vineyard Permit to a less-than-significant level. Some actions may not require discretionary approvals or an agency with regulatory authority may not take action. For these reasons, this Initial Study must acknowledge the potential for significant impacts that cannot be mitigated to a less than significant level.

While the CEQA regulations require consideration of a “reasonable range” of the potential environmental impacts, an examination of every site is not required, only consideration of a reasonably representative sample of them. Potential impacts of the Vineyard Permit are evaluated in this Initial Study relative to the existing physical conditions (i.e. “baseline conditions”) described below in section VI. Environmental Setting and section VII. Baseline Conditions. For some sections, an in-depth analysis of the Navarro River and Russian River

[6] For the purpose of this Initial Study and the draft Vineyard Permit, a “Landowner/Operator” is defined as a landowner and/or operator of a Vineyard Property meeting the size threshold of five acres or more in planted grape vines in the North Coast Region as set forth in the proposed Vineyard Permit as criteria for enrollment.

watersheds are included in addition to a more general analysis of the North Coast Region. This is to facilitate a greater level of analysis for the two watersheds within which 98 percent of the total vineyard acreage for the North Coast Region is located.

For the purpose of this Initial Study and the proposed Vineyard Permit, the term “Vineyard Property” includes the vineyard facility and appurtenant roads. The “Vineyard Facility” includes the permanent, semi-permanent, or temporary physical features of a vineyard, such as land, crops, drainage systems, roads, reservoirs, diversion structures/equipment, etc., that are established or maintained for the purpose of growing grapes. The Vineyard Facility does not include winery facilities subject to an industrial stormwater permit or other WDRs or conditional waivers of WDRs.

III. PROJECT SUMMARY

The proposed Vineyard Permit would implement the Basin Plan, which includes the North Coast Sediment and Temperature Policies, the statewide Nonpoint Source Program Implementation Plan, and the State Water Board’s ILRP precedential requirements with the overarching goal of controlling discharges and protecting and maintaining water quality standards.

The proposed Vineyard Permit would regulate discharges from the following types of Vineyard Properties within the project area shown on Figure 1:

1. All existing Vineyard Properties with five acres or more in planted vines,
2. All proposed Vineyard Properties with five acres or more in planted vines; and
3. Any Vineyard Property, regardless of planted acreage, that Regional Water Board staff determine a threat to water quality through a discharge of waste or threatened discharge of waste.

The Vineyard Permit will require controls for discharges from Vineyard Properties including the vineyard areas and roads throughout and requires the Landowners/Operators of Vineyard Properties to:

1. Seek coverage under the Vineyard Permit by submitting a Notice of Intent (NOI) to the Regional Water Board.
2. Develop a Vineyard Water Quality Protection Plan (Farm Plan).
3. Implement and maintain BMPs and other improvements as specified in the Farm Plan to meet the permit requirements.
4. Conduct Vineyard Property site inspections and compliance monitoring.
5. Submit an Annual Compliance Form to the Regional Water Board.

The fundamental objectives of the Vineyard Permit are as follows:

1. To control discharges of sediment, nutrients, and pesticides and/or stormwater runoff from Vineyard Properties into waters of the state, including surface waters and groundwaters, for the protection of beneficial uses.
2. To promote stream-riparian habitat protection and restoration.
3. To promote management decisions and measures to maintain adequate in-stream temperature.
4. To promote and incentivize water conservation.
5. To implement the statewide and regional policies and objectives, and
6. To implement the State Water Board's ILRP precedential requirements.

IV. VINEYARD PERMIT COMPLIANCE MEASURES

Many Vineyard Properties in the Navarro River and Russian River watersheds are already implementing a variety of erosion control BMPs in accordance with local regulations and with assistance provided by established technical assistance groups and voluntary conservation programs. Compliance with the Vineyard Permit is expected to result in an increase in the implementation of many commonly used, effective, and conventional agricultural BMPs to control and reduce erosion and other discharges from Vineyards Properties. The objective of stormwater runoff controls is to sink, slow, and spread or capture runoff instead of concentrating flow or increasing stormwater flow velocities.

Although it is impossible to predict the exact locations or nature of actual BMPs that will be implemented as a result of the Vineyard Permit, the types of actions that may occur would be consistent with those commonly used at existing Vineyard Properties within the North Coast Region that are effective in reducing erosion and runoff.

This Initial Study considers the potential environmental impacts associated with two categories of possible actions that include:

Implementation of BMPs. The Vineyard Permit will require implementation of numerous vineyard area and road BMPs that will, over time, result in reduction in erosion, sedimentation, stormwater runoff, nutrient and pesticide discharges, and the restoration of shade producing vegetation alongside watercourses from Vineyard Properties. Collectively, as more Landowners/Operators implement BMPs, improvements in water quality will be observed and measurable. Likely compliance measures that consist of the most common and effective BMPs for minimizing and controlling the delivery of sediment and stormwater runoff (including roads and points of discharges to streams), nutrients, and pesticides to receiving waters and the controllable water quality factors related to potential effective shade. Site-specific BMPs would take into account existing Vineyard Property operations and layout; identified sediment sources and their proximity and connection to water bodies; nutrient, pesticide, irrigation, and riparian area management; and the effectiveness of currently deployed BMPs.

Control of Discharges from New Vineyards. If approved by a local land use agency, new Vineyard Properties eligible for enrollment would need to be constructed and operated in compliance with the Vineyard Permit requirements. All proposed Vineyard Property

development projects defined as Hillslope Vineyards[7] would need to demonstrate that the Vineyard Property development would not result in increases in sediment delivery or runoff above existing conditions. It is important to note that the Vineyard Permit does not authorize or permit new Vineyard Properties, Vineyard Property expansions, or vineyard area expansions or replants. Local land use agencies are the entities with authority to process applications for and authorize new Vineyard Properties and/or vineyard areas, vineyard expansions, and vineyard replanting under their local regulations (general plan goals and policies, municipal codes and ordinances). These local regulations may require implementation of BMPs, issuance of permits (e.g., grading permits, erosion control permits, or use permits) or other approvals determined by the local agencies. The local decision-making body would serve as lead agency under CEQA in connection with authorizing any new vineyard related land uses.

Vineyard Landowners/Operators would be required to complete a Farm Plan that describes existing conditions and management practices on their Vineyard Property, including:

1. Vineyard Property map(s)
2. Inventory of Site Conditions
3. Management Practices to control and/or manage:
    a. In-field discharges of sediment, nutrients, and agrochemicals[8]
    b. Sediment discharge from roads and avenues
    c. Irrigation and nutrient management
    d. Wellhead protection
    e. Riparian area conservation
4. Stormwater[9] sampling locations
5. Photo point monitoring locations.

Farm Plans may be developed and implemented in cooperation with technical assistance groups such as the Resource Conservation Districts (RCDs), Natural Resources Conservation Service (NRCS), U.C. Cooperative Extension as well as Fish Friendly Farming or other Regional Water Board approved third-party groups. A description of the Vineyard Property land management activities proposed for regulation under the project include:

1. **Ground Disturbing Activities:** including any changes of land which may result in soil erosion from water or wind and the movement of sediment, including but not limited to clearing, grading, excavation, and backfilling of roads, farm areas, and unstable slopes.

    The vineyard Landowner/Operator would be required to implement a suite of appropriate BMPs to protect soil from erosion, prevent excessive rates of sediment

[7] A “Hillslope Vineyard” is defined by grapes planted on an average slope > 5 percent.
[8] Agrochemicals are defined as any chemical (e.g., feed additive, antibiotic, pharmaceutical, pesticide) which is used in agriculture to improve crop yields. For the purposes of this permit, nutrients (e.g. nitrogen or phosphorus-based fertilizers) are defined separately.
[9] Stormwater is defined by US EPA as the runoff generated when precipitation from rain and snowmelt events flows over land or impervious surfaces without percolating into the ground.

delivery from surface erosion of vineyard areas and associated road networks, and effectively attenuate stormwater runoff (described below). Many Landowners/Operators will meet this requirement by limiting tillage and planting cover crops such as grasses, legumes, and native ground covers. The effectiveness of these compliance measures would be required to be evaluated by field inspection, regular visual observation, and photo documentation.

The proposed Vineyard Permit would require a property-wide assessment to identify points of discharge from roads and to assess road conditions and active sources of anthropogenic sources erosion and sedimentation. The assessment would identify all locations where roadways have a potential to discharge sediment into waters of the state from culverts, hydrologically connected ditches, and stream crossings. Following the survey, the vineyard Landowner/Operator would be required to develop and implement a prioritization scheme to reduce or eliminate direct discharges from roads using BMPs in the vicinity of culverts, critical dips and additional structural BMPs required to be installed, where appropriate, to avoid potential culvert failure from debris clogging and/or stream diversion. Hillslope Vineyards would be required to avoid, minimize, and mitigate direct discharges to waters from roads to the maximum extent practicable.

Vineyard Landowners/Operators would be required to assess their Vineyard Property and on-site or adjacent streams to identify unstable areas such as gullies, mass wasting (e.g., landslides, rock fall, mud flows, etc.), and stream bank erosion that have resulted from past or current roads or Vineyard Facility operations. The Landowners/Operators would then be required to implement BMPs to accelerate natural recovery and prevent anthropogenic increases in sediment delivery from unstable areas.

In addition to controlling surface erosion, vineyard Landowners/Operators of Hillslope Vineyards would be required to effectively attenuate significant increases in stormwater runoff, so that the runoff from vineyards shall not cause or contribute to downstream increases in rates of bank or bed erosion. Evidence of active down-cutting or head-cutting, and/or anomalous patterns or intensity of bank erosion (e.g., extensive bank erosion along one or both banks), at or near the point of discharge or in the first downstream response reach will be interpreted to indicate that the upstream vineyard may be contributing to damaging increases in bed and/or bank erosion.

2. **Streamside Area Vegetation Management:** including the preservation or maintenance of intact riparian areas by allowing the natural establishment, growth, and persistence of native vegetation, restoration of disturbed riparian areas by the planting of trees, shrubs, and grass; reestablishment of riparian areas, and the stabilization of streambanks including the installation of stream bank protection materials such as willow root wads, geo-textiles, and or rock; recruitment of large woody debris; and locating staging areas for vineyard maintenance, harvest, and pruning away from streams and riparian areas. The Vineyard Permit would require implementation of streamside area setbacks, assessment, and re-establishment (as needed) of the vegetation and site-specific

potential effective shade[10] within the streamside management areas.

3. **Irrigation Management**: including the implementation of water conservation measures, equipment, and soil moisture retention practices such as, but not limited to, rainwater catchment systems, drip irrigation, mulching, cover crops, or irrigation water recycling to reduce water use.

   The proposed Vineyard Permit would require an assessment of irrigation and water conservation practices, actions to support water use consistent with agronomic rates, and actions to minimize impacts to watercourses during low flow periods. Changes in the use and or storage of water for irrigation and frost protection. The Vineyard Permit is likely to result in modifications in the use and storage of water, as supplied by surface water and groundwater sources, in such a manner that prevents excessive use during low-flow periods. Possible measures to comply with this requirement may include installing and maintaining micro-irrigation systems, drip irrigation systems, rainwater catchment systems, mulching, cover crops, or irrigation water recycling systems; constructing or modifying off-stream storage facilities; installing and operating groundwater wells; modifying the operation and timing of groundwater, surface water, or riparian right water extraction; relying on alternative water sources; and enhancing infiltration of groundwater (i.e. aquifer storage and recovery).

4. **Agrochemical Management**: including the application of organic and/or chemically based products, beneficial insects, and BMPs to control the lifecycle of pests.

   Vineyard Landowners/Operators may elect to use integrated pest management (IPM) practices as alternatives to the use of traditional pesticides and herbicides. IPM techniques may involve physical, biological, or mechanical methods that reduce the presence of pests. Examples include removing weeds by hand, introducing insects or host plants that provide pest management without the use of chemicals, or construction of perches or nesting boxes to encourage raptors that prey on rodents. Management actions would be identified and developed through the farm planning process and would include less-toxic pest control methods recommended by UC Cooperative Extension or similar guidance (UC Davis, UCCE).

5. **Nutrient Management**: including the implementation of BMPs that link soil, crop, weather, and hydrologic factors to achieve optimal nutrient use and agronomic rates of

[10] 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. 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.

application.

The Vineyard Permit is likely to result in modifications in the use of nutrients in a manner that prevents these chemicals from entering streams and to minimize leaching of nitrogen past the root zone into groundwaters. Possible measures to comply with this requirement may include improved timing and concentration applied nutrients, or changes in the type of fertilizer used. BMPs to ensure that storage of nutrients does not result in impacts to water quality and beneficial uses will also be required. Annual compliance would be required to document annual actions taken to address nutrient management.

Potential environmental effects are discussed in greater detail below in Section X. Initial Study. Likely Vineyard Permit compliance measures (e.g., BMPs and/or management practices) that may occur are listed below.

- **BMP-1** Plant and maintain no-till or winter cover crops
- **BMP-2** Apply composted mulch between vine rows
- **BMP-3** Install and maintain vegetated filter in farm area
- **BMP-4** Implement conservation tillage practices
- **BMP-5** Grassed waterway
- **BMP-6** Construct diversion ditch
- **BMP-7** Install engineered subsurface drainage pipes
- **BMP-8** Disconnect and/or remove subsurface drainage pipes at an existing vineyard
- **BMP-9** Construct level spreaders
- **BMP-10** Detention basin and/or constructed wetlands
- **BMP-11** Soil bioengineering techniques constructed using hand tools in gullies, and/or stream channels. (These techniques do not use of rip-rap, toe-rock, and heavy equipment in channels.) 11-a) willow wattles; 11-b) live fascines; 11-c) coir logs, 11-d) brush mattresses (without toe-rock); 11-e) willow walls; 11-f) shaping and/or revegetating (small gullies, drainage area ≤ 10 ac); 11-g) brush layering; and/or 11-h) construction of straw-bale, log, or brush check-dams (in small gullies)
- **BMP-12** Soil bioengineering techniques may involve placement of rock rip-rap and/or toe-rock, heavy equipment in channels, and/or construction of step pool structures and/or engineered log jams in channels. Specific techniques may include: 12-a) brush mattresses with toe-rock; 12-b) rock check-dams or grade-control structures; 12-c) reshaping and revegetation together with placement of rock or rip-rap (in large gullies); 12-d) brush layering; 12-e) fabric reinforced earth fills (FREFs); 12-f) engineered log jams; and/or 12-g) step pool structures
- **BMP-13** Install single-post track racks upstream of culverts with hand tools.
- **BMP-14** Construct water bars on unpaved roads
- **BMP-15** Remove unstable road fill or side-cast
- **BMP-16** Reshape road surface by outsloping and constructing rolling dips

- **BMP-17** Install ditch relief culverts to disperse runoff
- **BMP-18** Construct critical dips adjacent to stream crossings to address diversion potential
- **BMP-19** Decommission roads: Use of heavy equipment to rip road surface, construct cross-drains in road fill, remove unstable fill and/or side-cast, and remove stream crossings and stabilize disturbed areas
- **BMP-20** Construct a new storm-proofed road segment to replace a decommissioned road segment
- **BMP 21** Plant tissue and/or soil testing (to target application of nutrients)
- **BMP-22** Regularly calibrate pesticide sprayers and establish protocols to avoid drift into riparian and/or aquatic habitats
- **BMP 23** Implement integrated pesticide management practices
- **BMP 24** Construct concrete pads and earthen berms to protect well heads from contamination.
- **BMP 25** Construct safe and secure storage facilities for agrochemicals
- **BMP 26** Implement fertigation practices
- **BMP-27** Increase riparian and in-channel tree canopy retention for surface waters
- **BMP-28** Limit development and harvest actions in riparian areas to attain site potential effective shade
- **BMP-29** Exclusion areas. Exclude animals, people, or vehicles from an area to protect, maintain, or improve the quantity and quality of riparian vegetation
- **BMP-30** Stabilize stream crossings to provide controlled access across a stream for livestock and farm machinery
- **BMP-31** Plant vegetation to increase shade in accordance with site potential
- **BMP-32** Install silt fence, straw waddle, straw bale, gravel check dam, gravel bag berm, stockpile cover
- **BMP-33** Install sediment control basin, pond, embankment pond
- **BMP-34** Install riparian buffer/filter strip, grassed waterway/bioswale
- **BMP-35** Install culverts, stream crossings, water diversions, bridges

V. SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS

This Initial Study identifies potential environmental impacts of physical changes resulting from compliance measures required by the Vineyard Permit that, over time, would result in reduction in erosion, sedimentation, stormwater runoff, nutrient and pesticide discharges, and a reduction in the suppression of shade producing vegetation alongside watercourses from Vineyard Properties. The proposed Vineyard Permit would result in increases in the use of BMPs and construction of structural controls to meet water quality requirements. BMPs could potentially result in short-term impacts related to construction activities (grading, vegetation removal, stockpiling soils, and mobilizing heavy equipment).

Based on existing available information and evidence provided in this Initial Study, compliance with the proposed Vineyard Permit would result in "Less Than Significant" or "No Impact" in the following CEQA topic areas:

- Hydrology and Water Quality
- Land Use Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Based on existing available information and evidence provided in this Initial Study, compliance with the proposed Vineyard Permit would result in "Less Than Significant with Mitigation" in the following CEQA topic areas:

- Aesthetics
- Biological Resources
- Geology and Soils
- Hazards and Hazardous Materials

Based on this Initial Study, the EIR for the proposed Vineyard Permit will cover the following CEQA topic areas due to the potential for significant environmental impacts:

- Agriculture and Forest Resources
- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Mandatory Findings of Significance

VI. ENVIRONMENTAL SETTING

The North Coast Region comprises all basins including the Lower Klamath Lake and Lost River Basins draining generally westward into the Pacific Ocean from the California-Oregon state line southerly to the southerly boundary of the watershed of the Estero de San Antonio and Stemple Creek in Marin and Sonoma counties.[11] The Region is divided into two natural drainage basins: 1) the Klamath River sub-basin which drains the Cascade Range Geomorphic Province, the Modoc Plateau Geomorphic Province and the Klamath Mountain Geomorphic Province and 2)

[11] CWC § 13200(a)

the North Coastal sub-basin which drains the Coast Range Geomorphic Province. The North Coast Region covers all of Del Norte, Humboldt, Trinity, and Mendocino counties, major portions of Siskiyou and Sonoma counties, and small portions of Modoc, Shasta, Glenn, Lake, and Marin counties.

The North Coast Region comprises a total area of approximately 19,390 square miles (mi^2), including 340 miles of scenic coastline, 362 miles of designated Wild and Scenic Rivers[12], 416 mi^2 of National Recreation Areas[13], and 1,627 mi^2 of National Wilderness Areas[14], as well as urbanized and agricultural areas. The Region is characterized by steep, mountainous forested terrain with distinct temperature and precipitation zones. The mountain crests, which form the eastern boundary of the region, are about 6,000 feet above sea level with a few peaks higher than 8,000 feet in elevation. Much of the region is mountainous and rugged; only 13 percent of the land is classified as valley or mesa, and more than half of that is in the higher- elevation northeastern part of the region in the upper Klamath River Basin. The coast is mild, foggy and produces moderate variations in seasonal temperatures. Coastal redwoods and Douglas fir-tanoak forests dominate this landscape. Inland areas outside of the coastal influence undergo more extreme seasonal temperature variation with seasonal maximums exceeding 105 ºF. Oaks and pines interspersed with grasslands and chaparral are more common inland.

In 1998, the U.S. Geological Survey (USGS) published a report entitled "The Status and Trends of the Nation's Biological Resources. What follows are excerpts from this report for northwestern California[15].

> "Northwestern California has the wettest, most consistent climate in the state. It is composed mainly of the coastline and several metamorphic mountain ranges, including the Klamath Mountains and the north Coast Ranges. The coastal region, from the Oregon border south to Bodega Bay, is dominated by areas of coastal prairie, some coastal marsh, closed-cone pine and cypress forests on poor soils, and grand fir–Sitka spruce forests on better soils (Hickman 1993). Many of the cypress groves are associated with chaparral, rock outcrops, or serpentine soils. The closed-cone pines are generally small in stature and, like the cypresses, are associated with chaparral, fire, and shallow, acidic, nutrient-poor soils, often serpentine or sandstone. These pines are short-lived (50–100 years), and their seeds can only germinate on bare mineral soils. Like the cypresses, the closed-cone pines require fire for successful reproduction. Knobcone pine is the most widespread of the closed-cone pines, ranging nearly the length of the state."
>
> "Douglas-fir is often a codominant in redwood forests, becoming established after fires, and tanoak, California bay, madrone, and western hemlock are common understory trees where enough light penetrates the canopy (Zinke 1977). Redwood is a valuable timber

[12] https://www.rivers.gov/
[13] https://en.wikipedia.org/wiki/National_recreation_area
[14] https://www.fs.usda.gov/managing-land/wilderness
[15] http://www.nwrc.usgs.gov/sandt/SNT.pdf

tree because of its size and because of the wood's unique resistance to rot. More than 85 percent of the old growth coast redwood forests has been logged, but much of the original distribution of about 810,000 hectares remains in second-growth redwood forests of varying ages. Second-growth redwood forests support most of the same native vascular plants as old-growth forests, but habitat for species that depend on old-growth forests—such as spotted owls, marbled murrelets, some arthropods, mollusks, and canopy lichens—has been greatly reduced (U.S. Fish and Wildlife Service 1995a). Logging of redwood continues, although most old-growth stands are now protected in state parks and in Redwood National Park."

"Drier slopes of the Coast Ranges support mixed-evergreen and mixed-hardwood forests, whereas montane forests of subalpine fir and pines are found at higher elevations. Vegetation on the highest peaks is similar to that found at high elevations in the Sierra Nevada; peaks above 1,500 meters are treeless and experience heavy winter snows. Summers are hot and rainfall is low in the inner northern Coast Ranges, especially on eastern slopes in the rain shadow of the peaks. Serpentine soils are common, and dry eastern slopes support chaparral and pine–oak woodland. (Hickman 1993)."

The Navarro River watershed is a coastal watershed in southern Mendocino County encompassing approximately 315 mi^2 (201,600 acres). The Navarro River flows through the coastal range, the Anderson Valley, and out to the Pacific Ocean about fifteen miles south of the town of Mendocino (Entrix, 1998). The watershed is the largest coastal basin in Mendocino County and can be subdivided into five major drainage basins: Mainstem Navarro River, North Fork Navarro River, Indian Creek, Anderson Creek, and Rancheria Creek.

The Russian River watershed encompasses 1,485 mi^2 (950,400 acres) in Mendocino and Sonoma counties, bounded by the Coast Ranges on both the east and west. The mainstem is about 110 miles long, and flows southward from Redwood and Potter valleys (north of Ukiah) to its confluence with Mark West Creek, where it turns west to cut through the coast range and empty into the Pacific Ocean at Jenner.

Current issues in the Russian River watershed include bacterial quality, toxic blue-green algae (cyanobacteria) blooms, polluted runoff from urban and agricultural areas, high water temperatures, altered sediment levels, and concerns over the amount, location, and timing of water diversions. (Russian River | California Northcoast Regional Water Quality Control Board (https://www.waterboards.ca.gov/northcoast/water_issues/programs/watershed_info/russian_river/), Water Board, 2008)

The Navarro River and Russian River watersheds are designated as impaired for excess sediment and temperature. The sediment TMDLs for these watersheds document the presence of excess fine sediment (sand, silt, and clay particles), incised stream channels, and diminished fisheries, specifically for anadromous steelhead and Chinook salmon. The temperature TMDL

documents the reduction in site specific potential shade as a controllable water quality factor contributing to elevated temperatures.

Both TMDLs indicate that viticulture is the predominant land use in both valleys and is one of several major sources of fine sediment in the two watersheds. Vineyards make up most land use cover in the valleys and are becoming more extensive on hillsides in some tributary watersheds. Vineyards may yield fine sediment and other pollutants through surface erosion, road runoff, unstable areas (such as gullies and landslides), and from excessive stormwater runoff. Vineyard Properties may also contribute to increases in water temperatures through removal and suppression of shade producing vegetation and trees alongside watercourses.

Roadway networks, including both paved roads and unpaved roads, contribute fine sediment via direct erosion of the roadbed surface and inboard ditches. Surface erosion of the roadbed, caused by wind erosion, or formation of rills and gullies on the surface is common in these watersheds. Roads are either impervious (paved) or highly compact (unpaved) and they tend to generate large volumes of runoff. This runoff can cause erosion of the roadway's inboard ditch, hillslopes, and channels that receive this runoff. Stream channel instability caused by hydromodification or bridge obstructions can result in the removal of sediment from around bridge abutments or piers (bridge scour). In locations where culverts are undersized or become blocked with sediment and debris, bank erosion may occur.

Historical and ongoing reduction in coarse sediment inputs (from hydrologic changes including large dams) plus the overall increase in runoff and peak annual flows from developments in the valleys have caused Navarro River and Russian River and many of their tributaries to erode their bed and banks. These adjustments result in headcuts, gully and landslide formation, and channel incision.

This Initial Study provides a description of existing conditions relative to each CEQA topic area in the Environmental Checklist in the "background" discussion at the beginning of each environmental topic within Section 6, Environmental Impact Analysis, below.

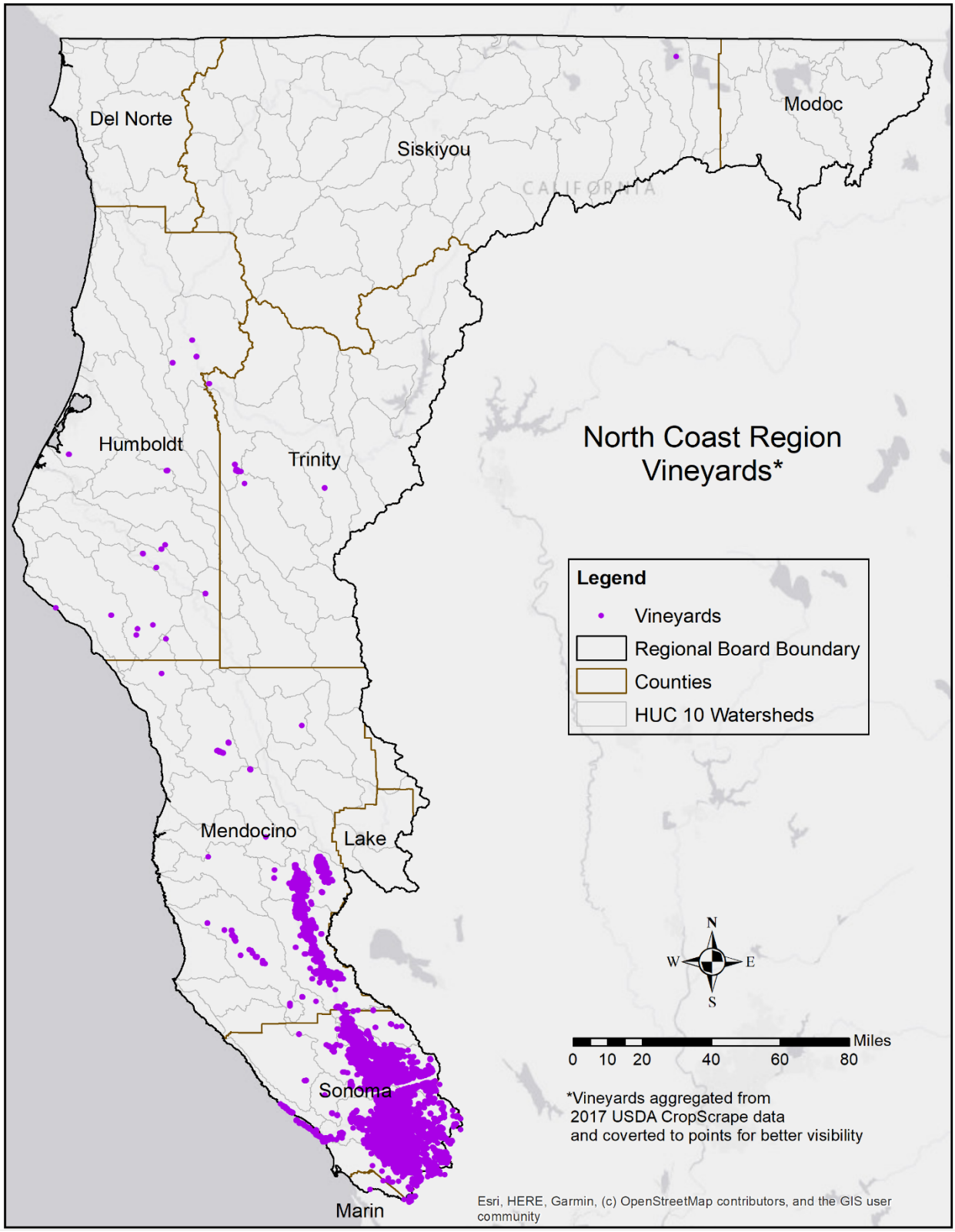

Figure 1. Approximate acreage of Vineyards in the North Coast Region (2017)

VII. BASELINE CONDITIONS

This environmental analysis considers potential environmental impacts of implementing the proposed Vineyard Permit. It considers actions that may be taken to comply with the Vineyard Permit, beyond those actions that have already been implemented voluntarily or under existing local regulations.

The baseline conditions for the purpose of this environmental analysis include:

1. Discharges from existing Vineyard Properties.
2. Existing physical conditions, including BMPs that are already implemented, because of policies, laws, and regulations of local cities and counties pertaining to vineyards, roads, vegetation removal, and stream setbacks.
3. Existing physical conditions as a result of existing permits, WDRs, and waivers of WDRs issued by the Regional Water Board or the State Water Resources Control Board (e.g., State Water Board Order 2009-0009-DWQ for Stormwater Discharges associated with Construction and other Land Use Activities).

Existing Regulatory Framework

Discharges from Vineyard Properties in the North Coast Region have not yet been regulated by the Regional Water Board either via General WDRs, waivers of WDRs, or prohibitions. Certain aspects of vineyard erosion have, however, been regulated through county-level permit programs, which are discussed below. Many actions have already been taken to implement these local programs and have led to tangible, physical changes to the environment.

Summary of Sonoma County Regulatory Program for Vineyards

New vineyard development and replants in Sonoma County are guided by the Grading, Drainage, and Vineyard and Orchard Site Development Ordinance (VESCO), adopted by Sonoma County in 2000. The Sonoma County Agricultural Commissioner's Office implements and enforces VESCO. Currently, the VESCO permit process does not require a CEQA project-level analysis. VESCO requires a permit for any grading, drainage improvement, or site development associated with new or replanted vineyards. VESCO permits are issued at two levels that take into account soil type, soil erosivity, and slope as follows:

Level I – Applies to new vineyards or replants developed on slopes less than or equal to 10 to 15 percent and does not require Erosion Control Plan (ECP) documentation or verification of project completion.

Level II – Applies to new vineyards or replants on slopes greater than 10 or 15 percent and requires the project proponent to submit an ECP that is reviewed by the VESCO staff. VESCO staff conducts post-construction reviews to confirm that ECP design plans were followed and implemented appropriately.

Both Level I and Level II projects are required to adhere to the BMPs and standards described in the *Best Management Practices for Agricultural Erosion and Sediment Control* manual (Sonoma County Agricultural Commissioner's Office, 2010). For Level II projects, the engineers preparing the vineyard ECP are required to document pre-construction peak runoff calculations and demonstrate that post-construction conditions will not increase runoff above pre-construction conditions and will not modify pre-existing drainage patterns. VESCO and the Sonoma County General Plan establish stream setback requirements that range from 25 feet to 50 feet, depending on the slope of the adjacent land, soil type, and stream designation. New vineyards on slopes greater than 50 percent are prohibited and there are no retroactive erosion control requirements for vineyards constructed prior to VESCO. Existing vineyards are required to comply with VESCO at the time of replanting[16] with more County oversight occurring on properties containing highly-erodible soils[17].

The proposed Vineyard Permit recognizes the existence of county regulations but is a separate and independent program that will implement General WDRs for Vineyard Properties in the North Coast Region.

Existing Farm Plans

As of 2021, an estimated 34 percent of the Region's planted vineyards already have completed comprehensive Farm Plans through collaboration with local governments, RCDs/NRCS, the Farm Bureau, and other grower groups in the valleys. The Sonoma County Agricultural Commissioner and Mendocino County Agricultural Commissioner indicate that there are over 75,000 acres of productive vineyards in Sonoma and Mendocino counties, where 98 percent of the North Coast Region's total vineyard acreage is located[18]. Of these, a significant number are certified by Fish Friendly Farming (FFF) (Table 1). Therefore, the acreages and percentages of Vineyard Properties that have completed Farm Plans and have implemented management measures to reduce nonpoint source pollutants (Table 1), represent watershed minimums.

Table 1. Acreage of Vineyard Parcels in the Russian River and Navarro River Watersheds and Percentage Certified under Fish Friendly Farming Program[19]

[16] Work associated with replanting of grapevines and/or other changes to the layout of vineyard blocks and vine rows, and other similar work.
[17] Soils in the Diablo, Dibble, Goldridge, Laughlin, Los Osos, Steinbeck, and Suther soil series as mapped by the U.S. Department of Agriculture.
[18] Department of Water Resources, 2017; US Department of Agriculture Cropscape 2017, Fish Friendly Farming, December 2021, Sonoma County Crop Report, 2021, Mendocino County Crop Report, 2021
[19] Fish Friendly Farming, December 2021

	FFF Vineyard Parcels (acres)	FFF Total acres / % Parcels FFF Certified	FFF Area Planted in Vineyard (acres)	FFF Total acres / % Planted Vineyard FFF Certified
Navarro River Watershed	6,900	5,200 / 75%	2,000	1,600 / 80%
Russian River Watershed	52,300	38,700 / 74%	22,900	17,000 / 74 %
Other Watersheds within the North Coast Region	4,100	3,400 / 83%	900	600 / 67%
TOTALS: North Coast Region in Total	**63,200**	**47,300 / 75% average**	**25,700**	**19,200 / 75% average**

Note: All acreage is estimated based on a minimum vineyard size of five acres and totals are rounded to the nearest hundred acres.

Under the FFF program, potential water quality impacts from Vineyard Property operations are evaluated through a site inspection and the preparation of a Farm Plan that chronicles the inspection findings. Potential issues of concern to water quality are identified in the Farm Plan and are corrected through the implementation of proper, site-specific BMPs. These BMPs are comparable to those actions that will occur through Landowner/Operator compliance with the proposed Vineyard Permit. To the extent that BMPs were implemented on Vineyard Properties prior to development of the Vineyard Permit, these features and facilities are considered to be part of the baseline physical conditions. These estimates do not account for Vineyard Properties that are enrolled in FFF and not yet certified or properties that have implemented vineyard and road BMPs through other technical assistance programs, such as the Sonoma, Mendocino, and Goldridge RCDs.

The Sonoma Resource Conservation District (RCD), recently developed LandSmart, a technical assistance program for grape growers and other farmers to help them to develop plans to protect and/or restore water quality and habitat conditions throughout their property (http://www.landsmart.org). This farm water quality and habitat protection program has multiple goals, including helping landowners to comply with existing regulations and the Vineyard Permit. Similar to FFF, the LandSmart program provides technical assistance with inventory of agricultural and natural resources, and with documentation and/or implementation of practices property-wide that are effective for control of fine sediment

discharge and for protection and/or enhancement of stream and riparian habitat conditions. Like FFF, it also evaluates and provides technical assistance related to: water resources management; agrochemical management; control of invasive species; and other resource management issues.

Other non-profits organizations and local government agencies also have expressed interest in providing technical assistance to grape growers to help them develop and implement Farm Plans to comply with the Vineyard Permit including: a) the California Sustainable Winegrowing Alliance (CSWA), which has developed the *California Code of Sustainable Winegrowing Workbook*[20]; b) Sustainability in Practice (SIP) Certified[21]; which is a sustainable vineyard, winery and wine certification with strict, non-negotiable requirements, committed to standards based on science and expert input, independent verification, transparency, and absence of conflict of interest; and c) the County of Sonoma, Agricultural Commissioner's Office, which has compiled BMPs for agricultural practices in riparian setback areas as well as the Vineyard Site Assessment Guide for erosion and sediment controls, among other materials to support vineyard Landowners/Operators[22].

VIII. AGENCY DETERMINATION

Existing, new, and expanding vineyards may potentially have a significant effect on the environment. However, potential effects are mitigated by the strict eligibility criteria, discharge prohibitions, waste discharge specifications, monitoring and reporting requirements, and other provisions of the Vineyard Permit. Prior to enrollment in Vineyard Permit, new or expanding, vineyards must demonstrate compliance with CEQA.

New vineyards will likely be subject to a project-specific CEQA analysis by a county, city, or state agency for evaluation and approval of grading, building construction, and other environmental impacts. Expanding vineyards may include activities that require project-specific CEQA analysis, depending upon the need for grading, construction, or any other environmental impacts that may be caused by operation of the expanded or reopening of the inactive vineyard. As such, the conclusions and development of mitigation measures by local land use authorities and other public agencies as they relate to potential environmental impacts for new and expanding vineyards may be different than those determined in the Vineyard Permit and its analysis of potential environmental impacts. Therefore, future lead agencies should base their findings on the site-specific information developed for the project.

IX. PUBLIC PARTICIPATION AND REVIEW

In order for the public and regulatory agencies to have an opportunity to submit oral comments

[20] https://www.sustainablewinegrowing.org/swpworkbook.php
[21] https://app.sipcertified.org
[22] https://sonomacounty.ca.gov/natural-resources/agricultural-weights-and-measures/divisions/agricultural-division/ordinances/grading-drainage-vineyard

on the scope of the EIR, a scoping meeting will be held during the 45-day scoping period. The purpose of a scoping meeting is to seek input from public agencies and members of the public on the range of project actions, alternatives, reasonably foreseeable methods of compliance, significant impacts to be analyzed, cumulative impacts if any, and mitigation measures that will reduce impacts to a less than significant level as part of the development of the proposed Vineyard Permit; and to eliminate from detailed study issues found not to be important.

Scoping may also assist in resolving concerns of affected federal, state, and local agencies, the proponent of the action, and other interested persons. Early public involvement assists Regional Water Board staff in refining the scope of the project and determining the range of environmental information and potential impacts the proposed project might have on the various categories of environmental resources such as water quality or geologic stability.

Two scoping meetings will be conducted one in-person meeting and one virtually (via Zoom). Both meetings will include a presentation about the draft Vineyard Permit and potential adverse environmental impacts associated with implementation of the permit. Agencies and the public will have the opportunity to provide oral comments during the CEQA scoping meeting and/or by submitting written comments any time during the 45-day scoping period. See the Notice of Preparation (NOP) for meeting details.

Following the scoping period, staff will begin developing a Draft EIR to include further analysis of potential direct and indirect impacts of the Vineyard Permit related to reasonably foreseeable methods, or compliance measures, that Landowners/Operators may construct or install and maintain to comply with the Vineyard Permit. CEQA Guidelines Section 15123(b)(3) requires identification of “issues to be resolved, which in this case includes the Regional Water Board making a choice among project alternatives, and also making decisions regarding whether and how to mitigate significant impacts of actions taken to comply with the proposed Vineyard Permit.

The purpose of the alternatives analysis in an EIR is to describe a range of reasonable alternatives to the project that could feasibly attain the objective of the project, and to evaluate the comparative merits of the alternatives (CEQA Guidelines, §15126.6, subd. (a).). Additionally, CEQA Guidelines section 15126.6. subd. (b) requires consideration of alternatives that could avoid or substantially lessen any significant adverse environmental effects of the proposed project, including alternatives that may be more costly or could otherwise impede the project’s objectives, and the No Project Alternative.

The project proposed is the Regional Water Board’s discretionary action to adopt the Vineyard Permit for the protection of water quality associated with vineyard properties. The Regional Water Board will prepare a Draft EIR, which includes a properly noticed public review period of 45-days. Following the close of the comment period staff will prepare responses to comments received on the draft EIR in preparation of the Final EIR. The Regional Water Board will review the Final EIR before certifying it as meeting the requirements of CEQA during a properly noticed public hearing. Once the EIR is certified, it will be considered by the Regional Water Board along with other important information, which will likely be presented at the time it considers adoption of the proposed Vineyard Permit.

X. INITIAL STUDY

A. PROJECT DESCRIPTION AND BACKGROUND

1. Project title:	Adoption and Implementation of General Waste Discharge Requirements for Vineyard Properties in the North Coast Region
2. Lead agency name & address:	California Regional Water Quality Control Board North Coast Region 5550 Skylane Blvd. Suite A Santa Rosa, CA 95403
3. Contact person:	Jeremiah Puget, Senior Environmental Scientist (707) 576-2835 Jeremiah.Puget@waterboards.ca.gov
4. Project location:	North Coast Region
5. Project sponsor's name & address:	California Regional Water Quality Control Board North Coast Region 5550 Skylane Blvd., Suite A, Santa Rosa, CA 95403
6. Description of project:	See sections I through V above.

7. Setting and surrounding land uses:

The proposed Vineyard Permit will regulate discharges from Vineyard Properties throughout the North Coast Region that have five or more acres in planted grape vines. Approximately 98 percent of existing vineyards within the North Coast Region are located within the Navarro River watershed in Mendocino County, and the Russian River watershed in Sonoma and Mendocino counties.

The North Coast Region comprises a total area of approximately 19,390 mi^2, including 340 miles of scenic coastline, 362 miles of designated Wild and Scenic Rivers, 416 mi^2 of National Recreation Areas, and 1,627 mi^2 of National Wilderness Areas, as well as urbanized and agricultural areas. The Region is characterized by steep, mountainous forested terrain with distinct temperature and precipitation zones. The mountain crests, which form the eastern boundary of the region, are about 6,000 feet above sea level with a few peaks higher than 8,000 feet in elevation. Much of the region is mountainous and

rugged; only 13 percent of the land is classified as valley or mesa, and more than half of that is in the higher-elevation northeastern part of the region in the upper Klamath River Basin. The coast is mild, foggy and produces moderate variations in seasonal temperatures. Coastal redwoods and Douglas fir-tanoak forests dominate this landscape. Inland areas outside of the coastal influence undergo more extreme seasonal temperature variation with seasonal maximums exceeding 100ºF. Oaks and pines interspersed with grasslands and chaparral are more common inland.

Navarro River Watershed.

The Navarro River watershed is a coastal watershed in southern Mendocino County encompassing approximately 315 mi^2 (201,600 acres). The Navarro River flows through the coastal range, the Anderson Valley, and out to the Pacific Ocean about fifteen miles south of the town of Mendocino (Entrix, 1998). The watershed is the largest coastal basin in Mendocino County and can be subdivided into five major drainage basins: Mainstem Navarro River, North Fork Navarro River, Indian Creek, Anderson Creek, and Rancheria Creek. Numerous tributaries enter the main stem from the mountains that rise abruptly on both sides of the valley.

State Highway 128 traverses much of the watershed, paralleling Rancheria Creek and the mainstem Navarro River for approximately twenty-five miles. Elevations in the basin range to about 3,000 feet above sea level. Land-use in the watershed includes forestland (70 percent), rangeland (25 percent), and agriculture (5 percent) with a small percentage devoted to rural residential development (Entrix, 1998). Timber production, livestock grazing, and other agricultural activities have been present in the Navarro River watershed since the mid-1800s. Today, commercial timber harvesting, viticulture, orchards, grazing, and tourism are the principal economic enterprises.

The Navarro River watershed has been placed on a list of impaired water bodies as required by Section 303(d) of the Clean Water Act (CWA). The 303(d) list describes water bodies that do not fully support all beneficial uses or are not meeting water quality objectives. It also describes the pollutants for each water body that impair beneficial uses and water quality. Water quality objectives and beneficial uses are identified for all water bodies in the North Coast Region in the Basin Plan. As required by CWA Section 303(d), pollutant loading allocations must be prepared for waterbodies on the 303(d) list. The Navarro River watershed was listed due to water quality problems related to sedimentation and increased stream temperature. At the time of listing, sedimentation and increased stream temperature were judged to be associated, in part, with management-related activities. Sedimentation and increased stream temperature were determined to be impacting the cold water fishery and associated beneficial use of the Navarro River watershed, including the migration (MIGR), and spawning, reproduction, and early development (SPWN) of cold water fish such as coho salmon and steelhead trout. Cold freshwater (COLD), estuarine habitats (EST), and commercial and sport fishing (COMM) are also designated uses of the Navarro River watershed.

Russian River Watershed.

The Russian River watershed encompasses 1,485 mi^2 (950,400 acres) in Mendocino and Sonoma counties, bounded by the Coast Ranges on both the east and west. The mainstem is about 110 miles long and flows southward from Redwood and Potter valleys (north of Ukiah) to its confluence with Mark West Creek, where it turns west to cut through the coast range and empty into the Pacific Ocean at Jenner. Numerous tributaries enter the main stem from the mountains that rise on both sides of the valley.

Major land cover types in the Russian River watershed are forest, grassland/rangeland, agriculture, wetlands and sparsely vegetated-land, and developed land, including residential, industrial, or commercial uses. Beneficial Uses, as defined by the Basin Plan include cold freshwater habitat; warm freshwater habitat; water contact recreation; noncontact water recreation; fish migration; preservation of rare and endangered species; fish spawning; warm freshwater habitat; and wildlife habitat. The Russian River watershed provides habitat for several aquatic special status species of concern, including steelhead trout, Coho, and Chinook salmon.

Current issues in the Russian River watershed include bacterial quality, toxic blue-green algae (cyanobacteria) blooms, polluted runoff from urban and agricultural areas, high water temperatures, altered sediment levels, and concerns over the amount, location, and timing of water diversions.

8. Other public agencies whose approval is required:

No other public agency approvals are required for the proposed Vineyard Permit.

9. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

A California Native American tribe has 30 days to request consultation pursuant to this section. The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within an agency's jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural

affiliation. The NAHC recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources. The Regional Water Board satisfied its obligation, to date, to address tribal cultural resources under the notification and consultation provisions of Public Resources Code – Assembly Bill 52 (Gatto). 63 tribes on the current Native American Heritage Commission Tribal Consultation (NAHC) List were contacted in July 2022 and Regional Water Board staff note that this process is currently underway.

B. ENVIRONMENTAL RESOURCES POTENTIALLY IMPACTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Less Than Significant with Mitigation” as indicated by the checklist on the following pages.

[X] Aesthetics

[X] Agriculture and Forest Resources

[X] Air Quality

[X] Biological Resources

[X] Cultural Resources

[X] Geology/Soils

[X] Greenhouse Gas Emissions

[X] Hazards/Hazardous Materials

[ ] Hydrology/Water Quality

[ ] Land Use/Planning

[ ] Mineral Resources

[ ] Noise

[ ] Population/Housing

[ ] Public Services

[ ] Recreation

[ ] Transportation/Traffic

[ ] Utilities/Service Systems

[X] Mandatory Findings of Significance

C. LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

[ ] I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

[ ] I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

[X] I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

[ ] I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

[ ] I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

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Signature _____

Water Boards

Matthias St. John
Executive Officer
North Coast Regional Water Quality Control Board

D. EVALUATION OF POTENTIAL ENVIRONMENTAL IMPACTS

A suite of BMPs are expected to be implemented on Vineyard Properties in order to comply with the Vineyard Permit. Anticipated compliance actions that implicate possible environmental effects are summarized below. Due to the local regulations described above and a significant level of proactive management efforts and participation in farm assistance programs by vineyards, many of these BMPs have already been implemented and are part of the existing baseline setting.

While the compliance measures themselves are forms of mitigation to be applied in the context of the activity, CEQA requires review of environmental impacts that result from measures intended to improve the environment. Some compliance measures evaluated may have potentially significant adverse effects on the environment such as air quality, noise, or traffic from temporary construction activities. However, the long-term benefits from implementation of compliance measures (such as preserving and maintaining shade) will likely outweigh any short-term adverse effects.

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines, which focus on various individual concerns within 18 different broad environmental categories, such as air quality, cultural resources, land use, and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. Each question in the Checklist essentially requires a "yes" or "no" reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination.

The Checklist tables provides, in addition to a clear "yes" reply and a clear "no" reply, two possible "in-between" replies, including one that is equivalent to "yes, but with changes to the project that the Lead Agency has made to, no", and another "no" reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple "no" reply. Each possible answer to the questions in the Checklist, and the different types of discussion required, are discussed below:

Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.

Less Than Significant with Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with

citations of relevant research or documents, determine that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project such impacts will be avoided or reduced to less-than-significant levels.

Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may be discernible with regard to the individual environmental topic of the question, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.

No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g., the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

Actions to comply with the proposed Vineyard Permit would result in a multitude of environmental benefits, including reducing sediment inputs to creeks and streams, improving water quality, reducing erosive forces from stormwater runoff, improving channel stability, improving fish habitat, and enhancing riparian habitat. In some cases, however, it is possible that the adoption of the Vineyard Permit could lead to potentially significant impacts that will be evaluated in the EIR.

Project Alternatives A reasonable range of potentially feasible project alternatives, in additional to the no project alternative, will be developed and evaluated in the EIR. The Regional Water Board will consider comments of responsible and trustee agencies and the public provided during the scoping period in the development of project alternatives.

I. AESTHETICS

Except as provided in Public Resources Code Section 21099, could the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		X		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		X		

Background

Vineyard Properties in the North Coast Region that would be subject to the proposed Vineyard Permit are typically located in rural agricultural settings. These lands are visible from public roads and neighboring properties and may also be partially visible from public open space areas. Vineyards are generally relatively large, open, cultivated areas. Trees, or other shrubs or landscape plantings, may be present, particularly along property boundaries and along riparian corridors. Vineyard Facility structures may include one or more residences, equipment sheds, water well pump structures, frost control facilities, and roads.

The North Coast Region is a predominantly rural region with numerous outstanding natural features and scenic vistas, including dramatic coastline, rolling hills, mountains, forests, rivers, wetlands, and estuaries. Hundreds of miles of highway cross through the North Coast Region. Within these highways 52 miles have been designated officially as State Scenic Highway. This includes 12 miles of Highway 101 as it passes through Redwood State Park in Del Norte County; 12 miles of Highway 12 east of Santa Rosa in Sonoma County, and 28 miles of Highway 116 west of Santa Rosa in Sonoma County[23] . Much of the rest of the highway system in the region is eligible as State Scenic Highway but has not been designated. These include:

County: Highways[24]

[23] California State Scenic Highway System Map (arcgis.com)
[24] http://www.dot.ca.gov/hq/LandArch/scenic_highways/

Del Norte: 101 north of Crescent City, 169, 197, and 199
Glenn: None
Lake: 20, 29, and 281
Mendocino: 1, 20, and 101
Modoc: 139 and 299
Siskiyou: 96
Sonoma: 1 and portions of 12
Trinity: 2 and 299.

Discussion of Impacts
a) Could the project have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. The Russian River and Navarro River watersheds are situated in a scenic area of northern California with expansive views of wineries, long rows of vineyards, large oak woodlands and annual grasslands that create a visual mosaic landscape. There are abundant scenic vistas at various vantage points in each watershed. Implementation of BMPs to comply with the Vineyard Permit are expected to be small in scale (plantings of cover crop, minor road regrading or repair, installation of small-scale structures such as culvert-protection trash racks, and no large building construction would occur. Changes that could result from compliance with the Vineyard Permit would consist of minor alterations to vegetation and topography that are low in profile (i.e., located near the ground surface) and will therefore blend into the existing landscape.

Compliance measures such as planting trees and/or retaining trees are generally regarded as positive aesthetics. Scenic vistas usually include well vegetated areas. In some cases, the planting or retention of large woody vegetation could reduce visibility to an adjacent water body; however, vegetation also provides habitat for wildlife and is known to enhance water quality which would improve the overall landscape. Compliance measures such as riparian restoration, modifications to water supply and water storage practices in agricultural lands, and erosion and sediment control measures may modify the appearance of an area; however, these measures are not likely to result in the elimination of agricultural occupations thereby eliminating areas of open space. Therefore, impacts to scenic vistas are considered less than significant.

Implementation of the Vineyard Permit would require minor grading or regrading of existing roads which could require the temporary clearing of land followed by re-vegetation. Grading and road erosion control activities would be short-term and could result in minor impacts to scenic views in various viewshed locations. Exposed soils would be visible along with earth-moving equipment. However, exposed areas would be replanted to blend into the landscape. Within weeks or months following construction, it is expected that the replanted vegetation will become established and blend in with the surrounding landscape. Given that anticipated actions are expected to be small in scale (from a regional context), low in profile, are short-term, and affected areas would be fully restored to blend into

the existing environment, impacts to scenic vistas would be less than significant.

b) Could the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact with Mitigation. Both Russian River and Navarro River watersheds have abundant scenic resources with the flat valley topography, established vineyards and winery buildings, wildlands. Highway 1, Highway 101, and Highway 116 are the only designated State Scenic Highway in the project area. While some unique trees or rock outcroppings may be present on some Vineyard Properties, the types of BMPs that would be implemented to comply with the Vineyard Permit would not affect these features. The anticipated compliance measures for the Vineyard Permit are intended to preserve and enhance riparian areas, including large trees, promote vegetated buffers, and to prevent erosion, both of soil and rock outcrops. Vineyard management actions to comply with the Vineyard Permit may affect some parcels of land adjacent to a designated State Scenic Highway; however, these actions would typically be small in scale.

Compliance measures such as the preservation of large woody vegetation could lead to an increase fuel load for wildfires which could then impact scenic areas. Fire impacts on riparian zones vary proportionally with the severity and extent of burning in the catchment and are affected by stream size. Riparian zones can act as a buffer against fire and therefore as a refuge for fire-sensitive species. However, under some circumstances, such as dry pre-fire climatic conditions and the accumulation of dry fuel, riparian areas can become corridors for fire movement. Fire incursion into riparian zones creates canopy gaps and drier conditions, which allow subsequent buildup of dead wood and establishment of fire adapted species. In concert, this increases fuel loads and the probability of another fire.

Secondary effects of riparian fire include altering nutrient fluxes and cycling, increasing sediment loads, and stimulating erosion. Riparian fires are potentially important in shaping ecological characteristics in many regions, but this is poorly quantified. A better understanding of riparian fire regimes is essential to assess the effects of fire in helping shape the complex ecological characteristics of riparian zones over the longer-term. (Pettit, N. E., and R. J. Naiman. 2007)

Based on the evidence and nature of forest fires, this appears to be a less than significant impact on the environment, if mitigated with proper fuel management. For example, the thinning of understory vegetation and select harvest prescriptions can decrease the fuel load while concurrently preserving and restoring shade along water courses. Additionally, firebreaks can be used in upland and riparian areas that do not affect water temperatures to ensure strategic defense against wildfires.

A compliance measure that requires land disturbance, such as the construction of a settling basin or a riparian fence, may include minor surface soil excavation or grading during construction, which could result in increased disturbance of the soil.

If, however, scenic resources were identified at the site, they would be avoided, and standard construction techniques and erosion and sediment control practices would require revegetation and would not result in permanent damage to scenic resources.

Neither the structural nor the non-structural compliance measures would be expected to degrade the existing visual character or quality of a site and its surroundings with the application of appropriate mitigation measures. Although implementation of structural BMPs could result in some change in visual character or ground surface relief features, most of the compliance measures identified as part of the environmental analysis are of relatively small scale, such as installation of road drainage features, riparian planting, riparian fencing, or small-scale water diversion systems. Likely, changes to the visual character or quality of the site and its surroundings will not be noticeable.

The larger scale projects, such as road decommissioning or construction of an off-stream water storage facility could potentially impact aesthetic resources. Visual impacts can be addressed by including mitigation measures such as early establishment of native vegetation (grass, forbes, and trees) on exposed surfaces.

Such compliance measures would not require the construction of facilities that could substantially damage scenic resources within this scenic corridor. Therefore, because the anticipated actions are small in scale (from a regional perspective), and no construction of major facilities are expected in the scenic corridor, the potential scenic resource impacts of the proposed project are considered less than significant with mitigation.

c) Could the project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. As described above, the Vineyard Permit would be implemented on Vineyard Properties located in predominantly rural areas. The visual character of the area is generally open, typified by cultivated rows of vines, intervening cover crops, and surrounding natural hillside vegetation. Implementation of vineyard and road BMPs could result in small scale, temporary alteration of ground cover vegetation or topography that would not be highly visible and would not degrade or change the overall visual character of vineyard sites or the surrounding regional viewshed areas. Therefore, the impacts to scenic resources would be less than significant.

d) Could the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant with Mitigation. The construction of an off-stream storage facility (i.e., pond) could be expected to occasionally create a new source of substantial glare.

Mitigation measures to reduce the significance include proper siting, constructing

berms or excess freeboard around the perimeter of a pond, or planting vegetation along the perimeter of a pond. The project would not require those complying with the Vineyard Permit to install any lighting or structures that could create light or glare and impair day or night-time views. Therefore, it would have no impact to light and glare with respect to lighting or structures that could create light. Therefore, the impacts related to creating a new source of substantial light or glare are less than significant with mitigation.

II. AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the CalFIRE regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526?				X

d) Resulting in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use	X			

Background

The California State Department of Conservation produces maps of counties with Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (agricultural lands of special significance). These are farmlands which based on their soil characteristics are especially well suited for agricultural production. It can be estimated from the Farmland Mapping and Monitoring Program information that no more than five percent of the North Coast Region is mapped as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. The California Department of Conservation also defines areas of grazing land based on certain environmental characteristics. Mendocino County is identified as predominantly grazing land and Sonoma County is a patchwork of farmland and grazing land.

Mendocino and Sonoma counties are premier wine-making regions of the world, with most agricultural land dedicated to vineyards and winery operations. Data from the county planning departments, Agricultural Commissioner, and the RCDs indicate that greater than 75,000 acres of planted vineyards are actively producing in the Russian River and Navarro River watersheds. The Vineyard Permit would apply, based on the eligibility and exemption criteria, to an estimated 98 percent of the existing vineyards in the Russian River and the Navarro River watersheds.

The Vineyard Permit would require implementation of BMPs that will result in reductions in erosion, sedimentation, and the discharge of pollutants from Vineyard Properties. These in turn will lead to an improvement of water quality, stream function, and riparian health. Implementation of the proposed Vineyard Permit is consistent with the current Mendocino County conservation goals and policies (Mendocino County General Plan, 2009) and Sonoma County goals and policies for sustainability and protection of resources (Sonoma County General Plan, 2020) that encourage and support agriculture through implementation of programs that increase the sustainability of resources, conserve energy, and protect water, soil, and biotic areas (refer to the Land Use Element section). Although local policies can be primarily and typically applicable to projects related to new development only and have evolved to broaden their requirements associated with sustainability and protection of resources over time, certain current local policies may not have yet been in effect during the time of development for many Vineyard Properties.

Discussion of Impacts

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

Potentially Significant Impact(s). Compliance measures to meet the setback requirements of the Vineyard Permit could cause incidental loss of agricultural use in lands mapped as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. These losses on a regionwide basis would only affect a very narrow band of land on either side of the watercourse, and as derived from the readily accessible information from the Farmland Mapping and Monitoring Program the U.S. Department of Agriculture National Agriculture Statistics Service it is estimated that no more than five percent of the North Coast Region is mapped as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. Additionally, some areas that are mapped as prime, unique, or important may comply with the proposed Vineyard Permit while others may not. Although there are many factors that affect this determination, it can be assumed that agricultural lands that implement new riparian protection actions or compliance measures to mitigate elevated stream temperatures and loss of riparian areas could be taking land out of production.

Measures to comply with the Vineyard Permit may result in planting of native vegetation and or trees in the riparian setback areas to create vegetated buffer strips, increase shade, and increase the size and ecological function of riparian zones. Increases in riparian vegetation would have beneficial impacts to water quality by filtering pollutants, providing shade, and lowering stream temperatures. Native vegetation in the riparian corridor should be selected using plant lists provided by the RCDs, so that host plants for vineyard pests (such as Pierces disease) are not planted. Therefore, planting native riparian vegetation and or trees near vineyards would not adversely affect and could help agricultural production.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526).

No Impact. Implementation of vineyard BMPs would not conflict with existing zoning for, or cause rezoning of forest land (as Defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526).

d) Would the project result in the loss of forest land or conversion of forest

land to non-forest use.

No Impact. Implementation of BMPs resulting from the Vineyard Permit would not result in the loss of forest land or conversion of forest land to non-forest use because the proposed project is focused entirely on existing vineyards or new vineyards that have received approval for development through local regulatory channels. Conversions of forest to vineyards would trigger local county land use regulations and California Department of Forestry and Fire Protection timber harvest regulations under the Forest Practice Act and associated planning and permitting processes by these agencies. The requirements of the proposed project by itself would not cause conversion of forest lands. The Vineyard Permit also excludes from coverage discharges associated with forest to vineyard conversions. Therefore, no impacts are anticipated.

III. AIR QUALITY

AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?			X	
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?			X	

Background

According to the California Air Resources Board (Air Board), the North Coast Region contains three separate, designated air basins. These include:

1. North Coast Air Basin encompassing Del Norte, Humboldt, Mendocino, Trinity counties, and the northern portion of Sonoma County.

2. Northeast Plateau Basin encompassing Modoc, Lassen, and Siskiyou counties; and Lake County Air Basin.

3. The southern portion of Sonoma County is contained in the Bay Area Air Basin.

The pollutants of concern to air quality include: particulate matter (PM), ozone, nitrogen dioxide, sulfates, carbon monoxide, sulfur dioxide, visibility reducing particles, lead, hydrogen sulfide, and vinyl chloride. Statistics for ozone, particulate matter, carbon monoxide, nitrogen dioxide, and hydrogen sulfide are readily available for the three air basins within the North Coast Region, and Sonoma County, as shown below.

Ozone, an important ingredient of smog, is a highly reactive and unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through complex reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Key pollutants involved in ozone formation are hydrocarbon and nitrogen oxide gases. Particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. Particles 10 microns or less in diameter are defined as "respirable particulate matter" or "PM 10." Fine particles are 2.5 microns or less in diameter (PM 2.5) and can contribute significantly to regional haze, reduction of visibility, and respiratory illness.

Carbon monoxide (CO) is a colorless, odorless gas. It results from the incomplete combustion of carbon-containing fuels such as gasoline or wood and is emitted by a wide variety of combustion sources. Sulfur dioxide (SO2) is a gaseous compound of sulfur and oxygen. SO2 is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. SO2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Hydrogen sulfide (H2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.

Sonoma county is located in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD) (Interactive Data Maps (baaqmd.gov). This county

is situated in the northern part of the greater San Francisco Bay area and bound on the west by Marin County, to the south by San Pablo Bay, and to the east by Napa Valley. Average high temperatures in Sonoma County are usually in the 50s in the winter and the 70s in the summer with the warmest months being August and September. Similar conditions exist for Mendocino County. Climate conditions in Mendocino County, which is adjacent and to the north of Sonoma County, include maritime influences in the eastern valleys that is lessened and more continental because of the distance from the ocean and mountain ridges that block the inland flow of marine air. The mean annual air temperature in the Ukiah Valley and nearby areas within Mendocino County is about 59 degrees. Annual average temperature on the coast range from 53 to 57 degrees. (Mendocino, 2009)

The Bay Area is currently designated as a nonattainment area for state and national ozone standards and as a nonattainment area for the state particulate matter standards. As required by federal and state air quality laws, the 2001 Bay Area Ozone Attainment Plan and the 2000 Bay Area Clean Air Plan have been prepared to address ozone nonattainment issues. In addition, the BAAQMD, in cooperation with the Metropolitan Transportation Commission and the Association of Bay Area Governments, prepared the Bay Area 2005 Ozone Strategy. This report describes the Bay Area's strategy for compliance with state one-hour ozone standard planning requirements and how to improve air quality in the region and reduce transport of air emissions to neighboring air basins. No PM10 plan has been prepared nor is one currently required under State air quality planning law.

The BAAQMD monitors priority air pollutants at stations throughout the Bay Area. The Sebastopol monitoring station (the only BAAQMD station in the area affected by the Vineyard Permit) is the most representative of air quality conditions in the North Bay where vineyard BMPs would be primarily implemented under the Vineyard Permit. Criteria air pollutants routinely measured at the Sebastopol Station include ozone, carbon monoxide, nitric oxide, nitrogen dioxide, oxides of nitrogen, and fine particulate matter (PM 2.5).

Combustion exhaust from the operation of vehicles, such as cars, trucks, and farm equipment may contribute to concentrations of these pollutants. Earthmoving for construction and road work can generate dust that is a source of particulate matter.

The 2014 through 2021 Sebastopol air monitoring station data shows that carbon monoxide, nitrogen dioxide, and ozone concentrations are well below state and federal standards. The concentrations of PM 2.5 varies throughout the year and is typically below the state standard of 50 micrograms per cubic meter and are typically well below the federal standard of 150 micrograms per cubic meter. Other air quality monitoring stations in the North Bay (San Rafael and Napa) also report concentrations of all criteria pollutants well below the standards.

Discussion of Impacts

a) Would the project conflict with or obstruct implementation of the

applicable air quality plan?

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

d) Would the project expose sensitive receptors to substantial pollutant concentrations?

Potentially Significant Impact(s). Actions to comply with the Vineyard Permit may generate particulates and other air pollutants from construction equipment exhaust and earth disturbance. Implementation of BMPs that would result in the construction of linear features, such as roads, would generate short-term GHG emissions. The magnitude of construction activities would vary widely between types of BMPs and, for each type of BMP, would vary widely between individual sites. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Compliance measures such as machine operated straw application for erosion control could result in the generation of fugitive dust and particulate matter during vineyard construction, replating, or BMP maintenance activities, which could temporarily impact ambient air quality. Any such impacts would be temporary, and would be controlled with standard construction operations, such as the use of moisture to reduce the transfer of particulates and dust to air and conducting operations when the air quality in the basin is good (i.e., no catastrophic wildfires).

Implementation of compliance measures that require the use of heavy equipment, such as construction of settling basins, road drainage installation or re-contouring of existing road prisms, could result in vehicle emissions during construction. However, these impacts would be short-term. Air quality impacts associated with heavy equipment used to modify or remove on-stream or off-stream storage facilities or implement other structural compliance measures such as those could be potentially significant, but they would be limited to those resulting from short-term construction activities.

Although vineyards are generally located in rural areas, given the sheer size of the Project area, it is possible that some vineyard properties requiring coverage under the Vineyard Permit may be located near schools, hospitals, and other sensitive land uses. Although compliance with the Vineyard Permit should not result in the construction and/or operation of new, stationary sources of air emissions, such as diesel engines, construction undertaken to implement the requirements of the Vineyard Permit could result in increases in particulates in the air in the immediate vicinity of the grading and construction operation, and could thus expose sensitive receptors to substantial pollutant concentrations. This impact could be significant.

Compliance measures such as manually applied erosion control, reservoir reseeding and riparian planting are not likely to result in a violation of air quality standards. The Vineyard Permit is anticipated to have a beneficial effect on the environment, greenhouse gas (GHG) emissions and climate change. Actions such as riparian preservation and restoration will sequester carbon from the atmosphere through plant photosynthesis. In addition, trapping soils through erosion and sediment control will reduce GHGs when carbon is locked up in trapped sediments, as well as living vegetation. Therefore, it is likely that the overall long-term benefits of the Vineyard Permit will aid in the reduction of GHGs and help provide resilience in the condition of North Coast watersheds and water resources as we face the uncertainty of climate change.

c) Would the project result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

e) Would the project create objectionable odors affecting a substantial number of people?

Less Than Significant Impact.

The Vineyard Permit will not result in new land uses, housing, or other uses that would generate sustained air emissions. Compliance with the Vineyard Permit would not result in the permanent installation of stationary engines such as diesel-fueled motors and therefore would not permanently increase emissions from Vineyard Property operations. The Vineyard Permit compliance projects would be consistent with the 2001 Bay Area Ozone Attainment Plan and the 2000 Bay Area Clean Air Plan. Therefore, the Project would not result in a cumulatively considerable net increase in any criteria pollutant. This would be a less than significant impact.

The majority of compliance measures would not be expected to result in objectionable odors affecting a substantial number of people. Compliance measures may result in objectionable odors in the short-term due to exhaust from construction equipment and vehicles. Diesel engines may be used for some construction equipment. Odors generated by construction equipment would be variable, depending on the location and duration of use. Diesel odors may be noticeable to some individuals at certain times, but would not affect a substantial number of people given that agriculturally zoned districts contain a low population density.

Certain structural compliance measures, such as detention basins, could become a source of objectionable odors if designs allow for water stagnation or collection of water with sulfur-containing compounds. Any odors would be very short-lived. Compliance measures that could result in stagnant water should be inspected regularly to ensure that treatment devices are not clogged, pooling water, odorous,

or mosquito vectors.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife		X		

corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

Background

The mission of the Regional Water Board is to develop and implement water quality standards and programs of implementation designed to restore and maintain the beneficial uses of water within the region. In the North Coast Region, some of the beneficial uses of water that often drive the water quality protection efforts of the agency are Cold Freshwater Habitat (COLD); Spawning, Reproduction, and Early Development (SPWN); Migration of Aquatic Organisms (MIGR); and Rare, Threatened or Endangered Species (RARE). The regulatory programs of the agency and the Vineyard Permit are designed to protect these beneficial uses, in turn, are most often driven by the sensitive habitat requirements of salmonids.

The proposed Vineyard Permit is developed specifically to benefit biological resources in the watersheds, including fish, wildlife, and rare and endangered species, which have been adversely affected by sediment. Actions to comply with the Vineyard Permit would primarily occur on land that is currently in vineyard production, or on existing roads in open space areas on vineyard properties. These areas have already been disturbed by land cultivation and by road construction. Some BMPs could, however, involve work in streams and riparian or wetland areas.

The Regional Water Board designs its water quality programs to protect other beneficial uses associated with the Region's biological resources as well, including Warm Freshwater Habitat (WARM), Estuarine Habitat (EST), Wildlife Habitat (WILD), Preservation of Areas of Special Biological Significance (ASBS), Wetland Habitat (WET).

The North Coast Region includes numerous threatened and endangered faunal

and floral species (T&E species). The presence and disposition of T&E species must be evaluated at the project level to ensure their adequate site-specific protection. The proposed Vineyard Permit, which is the subject of this CEQA analysis, is intended to be implemented in a manner which restores and maintains the beneficial uses of the North Coast Region, including those beneficial uses identified above. As elsewhere in the state, the quantity and quality of wetland habitat has been substantially reduced from historic levels. As such, the restoration and maintenance of the region's wetland and riparian resources is an important element of the Regional Water Board's effort. Riparian habitat is associated with virtually every waterbody in the North Coast Region. Substantial wetland habitat exists in the upper Klamath River basin, the Laguna de Santa Rosa, Humboldt Bay, Bodega Bay, and is associated with the estuaries of most of the rivers in the region.

Similarly, the water quality protection efforts of the Regional Water Board generally complement the environmental protection efforts represented in local policies and ordinances, Habitat Conservation Plans, Natural Community Conservation Plans, and other approved local, regional, or state habitat conservation plans. Any project implemented under the Vineyard Permit should be designed to avoid, minimize, or mitigate any potential impact to biological resources.

Discussion of Impacts

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (WDFW) or U.S. Fish and Wildlife Service?

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS?

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant with Mitigation. Compliance measures may have a potential impact upon species identified as a candidate, sensitive, or special status species in local or regional plan, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (U.S. FWS) if they occur in an area where such species are located. Increases in sedimentation could

occur through erosional adjustments at BMP construction sites that could adversely affect streambed characteristics for steelhead, Chinook salmon, California red-legged frog, California freshwater shrimp, foothill yellow-legged frog, and/or western pond turtle.

Riparian and wetland communities have been greatly reduced in size within California with wetland losses of up to 91 percent by estimation of the U.S. FWS. Thus, such habitats within the region are very important to the many species they support. Special-status species are vulnerable to any habitat loss or degradation. The ability to move to other habitat through wildlife corridors is vital to many terrestrial species. Modification of existing terrestrial habitat in the project area, especially limited riparian and wetland habitat, would have the potential to cause adverse effects.

Compliance measures could potentially have an impact if they are implemented in sensitive areas or areas of critical habitat. When installing structural compliance measures that involve substantial earth moving or riparian restoration activities that have the potential to affect candidate, sensitive, or special status species, project proponents are required to consult with federal, state, and local agencies, including but not limited to the county, CDFW, and the U.S. FWS. Project proponents must ensure project actions avoid, minimize and/or mitigate for impacts to rare, threatened, or endangered species.

Disturbances associated with roads where clearing, grading, and staging of equipment occurs could have impacts on sensitive habitats, including wetlands and riparian habitats along reservoirs and river reaches. Once a project plan is prepared and construction areas are delineated, measures would be implemented prior to and during construction to avoid and mitigate impacts to sensitive vegetation communities such as wetlands. During project level construction activities to implement compliance measures, both structural and non-structural compliance measures can be implemented to avoid, minimize, or mitigate potentially significant impacts to sensitive species.

For example, wetlands within 100 feet of any ground disturbance and construction-related activities (including staging and access roads) would be clearly marked and/or fenced to avoid impacts from construction equipment and vehicles. If new, temporary access roads are required, grading would be conducted such that existing hydrology would be maintained. In addition, water pollution control measures such as erosion control, sediment control, and waste management would be implemented to avoid and minimize potential water quality impacts from polluted stormwater runoff to streams, wetlands, and riparian areas. Another example of avoidance or minimization includes work window restriction on stream restoration activities for the protection of several aquatic species. Additionally, aquatic ecosystem creation, restoration or enhancement projects are often designed to provide compensatory mitigation for impacts that cannot be avoided or minimized.

Stream restoration actions to reduce erosion, remove sediment, and improve

habitat or riparian restoration actions to increase shade may conflict with the requirements of certain flora or fauna. Specific examples include low lying flora that would be out competed in the riparian zone by taller shade producing trees. In most cases impacts could be avoided by adjusting the timing and/or location of the actions to take into account candidate, sensitive, or special status species or their habitats. Additionally, compliance measures for increasing shade depend on site potential conditions and case-by-case determinations for implementation. Therefore, conflicts between the Vineyard Permit and particular species would be resolved at the project level. Mitigation measures would include collaboration between water board staff and CDFW and U.S. FWS staff to reach agreement on the most sensitive beneficial use.

In summary, noise generated by heavy-equipment operation to construct or install BMPs on unpaved roads, to construct soil bioengineering structures in gullies and/or channels, and/or to construct a detention basin (outside of the developed footprint of a vineyard), where this occurs within ¼-mile or less of a nesting site for a special status bird species have the potential to disrupt nesting of special status bird species, which is considered a significant impact.

Where BMP construction activities overlap at all with aquatic and/or riparian habitats, they also are subject to Streambed Alteration Agreements issued by CDFW, which would reduce impacts to all special-status species to a less than significant level. Standard terms and conditions of the Streambed Alteration Agreement and/or Section 7 Consultation, with regard to mitigating noise-related disruption of nesting by special-status birds, where project sites occur within ¼ mile of potential nesting habitat, would include either restricting the work window for heavy equipment use, so that it does not overlap with the nesting period (construction activities could not begin prior to August 1 or continue past October 15), or requiring that a protocol survey be conducted to determine whether special-status bird species are present, and if so, to implement appropriate mitigation measures to reduce potential impact to a less than significant level.

At almost all Vineyard Properties, compliance actions would not overlap with and/or affect wetlands. At a few Vineyard Properties: a) problem roads may need to be decommissioned, which would include excavation and removal of road crossings over stream channels; b) new storm-proofed roads may be constructed, which would include construction of new road crossings over stream channels; and/or c) detention basins may need to be constructed, and at a few of these properties the only feasible location for construction could be within a wetland area. Also, soil bioengineering projects could be constructed in gullies and/or channels to control erosion where Hillslope Vineyards have increased bed and/or bank erosion, as result of significant increases in runoff.

In the cases described above, if BMP construction overlapped with federally protected wetlands, there could be significant impacts. Where BMP construction overlaps with and/or disturbs a stream channel, riparian area, and/or other wetlands or waters of the United States, the Regional Water Board would require the project

proponent to obtain and comply with the terms and conditions of a Clean Water Act Section 401 permit and WDRs. For streams and wetlands that are not subject to federal jurisdiction, but are considered waters of the state, the Regional Water Board would require coverage by either WDRs or a waiver of WDRs.

BMPs avoid and minimize impacts to wetlands by identifying construction buffers to limit access to wetlands near the construction area. For wetlands that are temporarily or permanently impacted, compensatory mitigation requirements will be required, implemented, and monitored for success under state and federal law. In addition, if new temporary access roads are required for construction or demolition, grading would be conducted such that existing hydrology would be maintained. Also, BMPs would be implemented to address potential water quality impacts from polluted stormwater runoff to streams, wetlands, and riparian areas. Therefore, this is a less than significant impact with mitigation incorporated.

The majority of the North Coast rivers and their tributaries provide habitat, including the migration, for both native resident and migratory fish. A migratory corridor is generally described as a landscape feature (such as a ridgeline, canyon, stream, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources such as water, food, spawning grounds, rearing habitats, or den sites. Wildlife corridors are generally an area of habitat, usually linear in nature, which connect two or more habitat patches that would otherwise be fragmented or isolated from one another. Most of the compliance measures will likely not interfere with the movement of these species.

Compliance measures and BMPs such as riparian fencing (for cattle exclusion), silt fence and straw wattles (for sediment control) have been known to entrap or entangle terrestrial wildlife (such as elk and deer) as well as some aquatic species (salamanders) and reptiles (snakes). Some specific areas are more prone to creating barriers to wildlife and can best be dealt with on a case-by-case basis. If there is a potential for an adverse impact to wildlife migration and/or use of a native wildlife nursery, the timing of the discharge, the location or the type of the compliance measure can be changed to avoid or minimize the impact to less than significant levels. For example, rotational grazing practices and hot wire fences are alternatives to exclusionary fencing that have the potential to impede wildlife migration. Another example is concentrating efforts on erosion control methods to avoid using silt fences in sensitive areas. Additionally, natural fiber straw waddles without plastic netting are available to use as alternatives to sediment control technologies that may be a migration barrier. Based on the site-specific situation, the case-by-case flexibility associated with the Vineyard Permit and the avoidance, minimization, and mitigation measures associated with a particular project, the potential impacts are less than significant with mitigation incorporated.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. Compliance measures will encourage riparian protection and are not expected to conflict with ordinances protecting biological resources, such as a tree preservation policy.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Less Than Significant Impact. It is unlikely that the implementation of compliance measures would conflict with the provisions of an adopted HCP, NCCP or other approved local, regional, or state habitat conservation plan. More likely the compliance measures would be similar to measures already committed to under these types of plans. Such similarities are likely to ensure that compliance measures are generally in alignment with any adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	X			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?	X			

Background

The North Coast Region has a rich human history going back perhaps 10,000 years. Lands throughout the Region therefore have the potential to harbor buried ancient cultural resources. Similarly, there are numerous sites of historic interest

scattered throughout the Region, representing the Region's mining, shipping, logging, and agricultural history, among others. The presence and disposition of cultural resources must be evaluated at the project level to ensure their site-specific protection. Any project implemented under the Vineyard Permit should be designed to avoid, minimize or mitigate any potential impact to cultural resources.

The Regional Water Board has adopted a Native American Culture (CUL) beneficial use designed to support the cultural and/or traditional rights of indigenous people such as subsistence fishing and shellfish gathering, basket weaving and jewelry material collection, navigation to traditional ceremonial locations, and ceremonial uses. The Vineyard Permit are intended to be implemented in a manner which restores and maintains the beneficial uses of the North Coast Region, including the CUL beneficial use.

Before the European settlement, Sonoma and Mendocino counties were inhabited primarily by Native Americans of the Coast Yuki, Coastr Miwok, Huchnom, Cahto, Sinkone, and Wallaki, Coyote, Yokayo, Redwood, and Potter Valley tribal groups. Artifacts indicate that the earliest dates of human occupation in Mendocino County date back approximately 6,000 years. This territory consisted of valleys and foothills with plentiful resources and a warm and temperate climate. Permanent occupation sites were most frequently located at the confluence of streams, in the valleys, and at the bases of hills. As with most of the hunting gathering groups of California, the acorn was the primary plant food, along with a variety of roots, bulbs, grasses, and other edible greens; and deer, elk, and antelope were the primary big game. Material culture included an emphasis on the use and production of baskets for many of the day-to-day tasks of living, however, each had its own territories, cultural traditions, and forms. (Native American Tribes & the Indian History in Santa Rosa, California | American Indian COC; Mendocino, 2009).

With the advent of the mission system in the latter half of the 1700s, the numbers of Native Americans in the Mendocino and Sonoma regions decreased rapidly, as did all Native American populations throughout the San Francisco Bay Area and California. After European settlement the area's agricultural industry became cattle and timber harvesting. Historic and archaeological remnants of these counties' pasts include sacred sites, burial grounds, cemeteries, ceremonial sites, barns, farmsteads and walls, among others. Historical resources, as distinguished from archaeological resources, include antiques, buildings, structures, and sites generally of the past two centuries, marking the successive eras of Russian, Mexican, and North American occupation of Sonoma and Mendocino counties, and are present in both the Russian River and Navarro River watersheds.

CEQA §15064.5 considers historic resources significant if they are eligible for, or are listed in, the California Register of Historical Resources. Historic resources must meet one of the following criteria to be eligible:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of

California or the United States.

- It is associated with the lives of persons important to local, California, or national history.

- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.

- It has yielded, or has the potential to yield, information important to the pre-history or history of the local area, California, or the nation.

Discussion of Impacts

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Potentially Significant Impact. Actions to comply with the Vineyard Permit could involve both minor and larger-scale grading and construction activities. Although many of these construction activities are expected to fall within the existing, developed vineyard footprint, due to either technical feasibility and/or space constraints, some could be located in adjacent, undeveloped portions of the vineyard property.

It is unlikely that most compliance measures would cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to section 15064.5. Although there always remains the potential for ground-disturbing activities to expose previously unrecorded cultural resources, impacts to cultural resources would be relatively rare because most BMPs involve the construction of small features that would be sited within previously disturbed areas, such as existing unpaved roads and vineyard areas, and within previously disturbed depths. On relatively few occasions, BMPs may require ground disturbing activities outside of previously disturbed areas, as would be the case with roadway realignments, or at greater depths within previously undisturbed areas, such as the installation of detention basins. Some BMPs, however, may require excavation or grading deeper into undisturbed soils within these areas, raising the possibility of impacting cultural resources buried at greater depths. Furthermore, BMPs could be installed outside of existing vineyards and roadways, and potentially alter or destroy historical, archaeological, or paleontological resources or human remains.

The implementation of compliance measures as recommended under the Vineyard Permit would not result in the alteration of a significant historical or archaeological resource unless that resource was otherwise impairing flows, causing excessive erosion or limiting site potential shade. However, in cases where the installation of structural compliance measures may involve large scale excavation activities or the construction of a large-scale infrastructure, a cultural resources investigation should be conducted before any substantial disturbance. The cultural resources investigation will include, at a minimum, a records search for previously identified cultural resources and previously conducted cultural resources investigations of the project parcel and vicinity. All future actions must comply with the CEQA process and requirements for tribal consultation provided by Senate Bill 18 (SB 18) (State 2004, Ch 905) and Government Code section 65252.

If avoidance is infeasible, the future projects will be required to follow Native American Heritage Commission's mandate for Native American Human Burials and Skeletal Remains, in partnership with affected tribe(s), in order to adequately provide for recovering scientifically consequential information for the site. If the ground disturbances uncover previously undiscovered or documented resources, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains. (Health & Safety Code, Section 7050.5; Public Resource Code, Section 5097.9 et seq) This records search should also include, at a minimum, contacting the appropriate information center of the California Historical Resources Information System, operated under the auspices of the California Office of Historic Preservation.

In coordination with the information center or a qualified archaeologist, a determination regarding whether previously identified cultural resources will be affected by the proposed project must be made and if previously conducted investigations were performed to satisfy the requirements of CEQA. If not, a cultural resources survey would need to be conducted. The purpose of this investigation would be to identify resources before they are affected by a proposed project and avoid the impact. If resources are identified site-specific implementation will minimize impacts.

The implementation of compliance measures would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Non-structural BMPs will not result in the direct or indirect destruction of a unique paleontological resource or site or unique geologic feature. Similarly, it is unlikely that implementation of any structural BMP would result in the destruction of a unique paleontological resource or site or unique geologic feature. However, in cases where the installation of structural BMPs may involve excavation activities, an investigation of paleontological resources would need to be conducted by a trained professional before any substantial disturbance of land that has not been disturbed previously.

Impacts to cultural resources and archaeological resources can be reduced to a

less than significant level with the implementation of the mitigation measures described above. The ability to require such measures is within the purview of jurisdictions with local land use approval and/or permitting authority. In all cases where compliance actions at an individual Vineyard Property meet the CEQA definition of a "Project," the local land-use authority would issue a CEQA document. In some of those cases, local land use agencies have determined that a categorical exemption applies to the action (e.g. construction of erosion control BMPs within the footprint of existing unpaved roads) or has a streamlined CEQA process in place (e.g. VESCO). Therefore, there is inherent uncertainty in the degree of mitigation the counties will ultimately implement to reduce potential significant impacts.

VI. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides		X		
b) Result in substantial soil erosion or the loss of topsoil?		X		

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X

Background

The California Geological Survey divides the state into 11 distinct geomorphic provinces. A geomorphic province is a naturally defined geologic region that displays a distinct landscape or landform. The Klamath River sub-basin includes the Modoc Plateau, Cascade Range, and Klamath Mountain provinces. The North Coastal sub-basin includes the Coastal Range province.

Modoc Plateau Geomorphic Province:

The Modoc Plateau is a volcanic table land (elevation 4,000-6,000 feet above sea level) consisting of a thick accumulation of lava flows and tuff beds along with many small volcanic cones. Occasional lakes, marshes, and sluggishly flowing streams meander across the plateau. The plateau is cut by many north-south faults. The province is bound indefinitely by the Cascade Range on the west and the Basin and Range Province on the east and south.

Cascade Range Geomorphic Province:

The Cascade Range, a chain of volcanic cones, extends through Washington and Oregon into California. It is dominated by Mt. Shasta, a glacier-mantled volcanic cone, rising 14,162 feet above sea level.

Klamath Mountain Geomorphic Province:

The Klamath Mountain Geomorphic Province has rugged topography with prominent peaks and ridges reaching 6,000-8,000 feet above sea level. In the western Klamath, an irregular drainage pattern is incised into an uplifted plateau called the Klamath peneplain. The uplift has left successive benches with gold-bearing gravels on the sides of the canyons. The Klamath River follows a circuitous course from the Cascade Range through the Klamath Mountains. The province is considered to be a northern extension of the Sierra Nevada (CDC 2002). The Klamath Mountain Geomorphic Province consists of four mountain belts: the eastern Klamath Mountain belt, central metamorphic belt, western Paleozoic and Triassic belt, and western Jurassic belt. Low-angle thrust faults occur between the belts and allow the eastern blocks to be pushed westward and upward. The central metamorphic belt consists of Paleozoic hornblende, mica schists, and ultramafic rocks. The western Paleozoic and Triassic belt, and the western Jurassic belt consist of slightly metamorphosed sedimentary and volcanic rocks. This is an uplifted and dissected peneplain on strong rocks; there are extensive monadnock ranges. Elevation ranges from 1,500 to 8,000 ft (456 to 2,432 m). Soils include Alfisols, Entisols, Inceptisols, and Ultisols, in combination with mesic and frigid soil temperature regimes and xeric and udic soil moisture regimes.

Coast Ranges:

The Coast Ranges are northwest-trending mountain ranges (2,000 to 4,000, occasionally 6,000 feet elevation above sea level), and valleys. The ranges and valleys trend northwest, subparallel to the San Andreas Fault. Strata dip beneath alluvium of the Great Valley. To the west is the Pacific Ocean. The coastline is uplifted, terraced and wave-cut. The Coast Ranges are composed of thick Mesozoic and Cenozoic sedimentary strata. The northern and southern ranges are separated by a depression containing San Francisco Bay. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by strike-ridges and valley in Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. The Coast Ranges are subparallel to the active San Andreas Fault. The San Andreas is more than 6000 miles long, extending from Point Arena to the Gulf of California (CDC 2002). This area has parallel ranges, and folded, faulted, and metamorphosed strata; there are rounded crests of subequal height. Elevation ranges from 1,000 to 7,500 ft. Soils include Alfisols, Entisols, Inceptisols, Mollisols and Ultisols in combination with mesic and thermic soil temperature regimes and xeric soil moisture regime.

Tectonics

Of prime significance to the geology and soils of the North Coast Region are the collision and subduction of the Juan de Fuca tectonic plate under the North American plate and the transform (strike-slip) movement between the Pacific and North American plates along the San Andreas fault, including activity at the Triple Junction where the North American, Gorda, and Pacific plates meet. The tectonic

activity of the North Coast Region generally results in steep, unstable slopes and a mixture of consolidated and unconsolidated, marine and continental-derived geology. As a result, erosional potential in the North Coast Region can generally be described as high.

Russian River Watershed: The Russian River watershed consists of marine rock of the Jurassic and Cretaceous age. The principal aquifer in the valley is the alluvium of Recent age, which includes highly permeable channel deposits of gravel and sand. The watershed is located at the southern end of the northern California Coast Range province, an active zone of tectonic deformation and activity that is associated with the San Andreas Fault system, the Healdsburg Fault, the Maacama Fault, and the Rodgers Creek Fault Zones (Earthquake-Faults-Liquifaction-Areas.pdf; showpublisheddocument (mendocinocounty.org).

Navarro River Watershed: The Navarro River watershed, located in southern Mendocino County is composed of mostly three different geologic formations: the Melange Unit of the Franciscan Assemblage, the Coastal Belt of the Franciscan Assemblage, and alluvial fill (Waterboard, 2000). The most extensive geologic formation, the Franciscan Formation, formed during the Tertiary to Cretaceous periods, is made up of well-consolidated clastic sedimentary rock, mainly sandstone and shale with minor amounts of limestone and conglomerate (Manson 1984). The second most extensive geologic formation is the Franciscan Melange, formed during the Tertiary-Cretaceous period. The Melange consists of a pervasively sheared, clay-containing matrix which surrounds pebble-size to individually mappable blocks of graywacke, greenstone, chert, schist, serpentine, and serpentinized ultrabasic rocks (Manson 1984).

Groundwater within the Navarro River watershed generally moves in a northwesterly direction following the topographic axis of the valley. Although there are no extensive or continuous aquifers in the valley, groundwater can be found in recent alluvium deposits, stream channel deposits, and terrace deposits (Waterboard, 2000).

Discussion of Impacts

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Strong seismic shaking?

Seismic-related ground failure?

No Impact. The proposed Vineyard Permit would not involve the construction of

habitable structures; therefore, it would not result in any human safety risks related to fault rupture, seismic ground-shaking, ground failure, or landslides. None of the compliance measures would result in any adverse impact related to fault zones, liquefaction or other seismic related activity, nor would it result in any lateral spreading, subsidence, liquefaction, or collapse.

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

Landslides?

b) Would the project result in substantial soil erosion or the loss of topsoil?

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant with Mitigation. Activities that may trigger a landslide or exacerbate an existing landslide include the removal of support material at the toe of a slope, the addition of weight to the top of a slope, or the additional of water into the slope's subsurface. Excavation or grading at slope toes, the addition of weight such as spoil piles or irrigation ponds at the tops of slopes, and the diversion of water into the subsurface of slopes may occur on existing sites; the proposed Vineyard Permit includes requirements designed to remedy unstable conditions. It is unlikely that properly implemented management measures or remediation/ cleanup/ restoration activities at vineyards would be on a scale significant enough to result in exposure of people or structures to geologic hazards. Compliance measure are unlikely to expose people or structures to potential substantial adverse effects involving fault rupture, strong seismic ground shaking, and seismic-related ground failure such as liquefaction. In a situation where the Vineyard Permit requires remediating slope, rill, gully, and/or stream bank erosion, larger-scale work may be involved, such as re-grading of fill prisms, removal of fill from watercourses, construction of retaining walls for soil stabilization, upgrading of stream crossings, or reshaping cutbanks.

If the vineyard is in an Alquist-Priolo Earthquake Fault Zone or an area with substantial evidence of a known fault, the erosion control plan will consider fault rupture hazard during the siting, design, and monitoring of applicable site features in order to minimize the impact to public safety. The erosion control plan shall also consider hazards associated with strong seismic ground shaking and seismic-related ground failure, including liquefaction, during the siting, design, and monitoring of applicable site features in order to minimize the impact to public safety. Additionally, the Vineyard Permit requires that water storage facilities be properly located and designed to minimize failure potential and catastrophic discharge to surface waters. Proper siting, design, and monitoring of relevant improvements will minimize the impacts of fault rupture and seismic effects to less

than significant levels.

The Vineyard Order contains provisions to mitigate the exposure of people or structures to potential substantial adverse effects related to landslides. The Order specifies that erosion control plans will be prepared by a qualified professional. The erosion control plan shall consider 1) the presence and location of identifiable existing landslides which could be affected as a result of site activities resulting from the Vineyard Permit and 2) slopes which may become unstable as a result of site activities resulting from Vineyard Permit compliance measure. Further, the Vineyard Permit requires that irrigation runoff be controlled so as to prevent it from exacerbating unstable features and conditions. Proper siting, design, and monitoring of relevant improvements by a qualified professional will minimize the potential impacts of the Vineyard Permit to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, and landslides to less than significant levels

The geographic scope of the activities covered under the Vineyard Permit will include areas that are highly susceptible to soil erosion and shallow landslides due to the presence of steep slopes, high rainfall rates, and/or underlying geology. Site-specific areas of instability will be identified as part of the erosion control plan preparation and will be avoided (to promote natural recovery and revegetation) or stabilized through selected BMPs. The Vineyard Permit requires actions to stabilize existing sources of sediment, some grading and remedial actions, such as installation of retaining walls, stream bank repairs, and/or gully repair, could occur to stabilize these unstable areas. Outgrowth stabilization actions could include improvements to roads and creek crossings, and other projects located on unstable terrain. These projects would be designed to increase stability, both on-site and off-site, and to reduce erosion and sedimentation. Grading would be designed to minimize any potential for landslides, lateral spreading, subsidence, liquefaction, or collapse.

A major focus of the sediment control actions and in existing regulation ensure proper road drainage, surface soil stability, and full vegetation potential which reduces soil erosion, and can reduce or prevent large-scale slope and fill failures. Anticipated compliance measures consist of erosion management strategies such as increasing ground cover, stabilizing eroding areas, and repairing failing roadways or erosional features to eliminate sediment sources. Installation of anticipated compliance measures such as the construction of small structures or facilities (pipes, inlets, energy dissipaters, trash racks, drainage facilities, stormwater runoff diversion structures, etc.) could result in small scale earth moving from construction vehicles and equipment used during installation. Although these types of actions are routinely used in existing vineyard operations, the proposed Vineyard Permit would likely result in increases in the installation and maintenance of the above-mentioned structures. Implementation of compliance measures may result in minor temporary soil excavation or disturbance during implementation of compliance measures that involve construction of structural BMPs such as road

drainage installation, field leveling for irrigation management or installation of off channel stock watering ponds. Such activities (e.g., promoting infiltration of rainfall on vineyards, the repair of erosion features, minor road rehabilitation or decommissioning, etc.) would not result in substantial soil erosion or the loss of topsoil because these actions are anticipated to be limited in size and scope and earth disturbance would be temporary. Correct design, implementation, and maintenance of compliance measures and the mitigations outlined above decrease the potential for increased soil erosion, loss of topsoil or landslides to less than significant with mitigation incorporated.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact. Landowner/operator compliance with the Vineyard Permit would not involve construction of buildings (as defined in the Uniform Building Code) or any habitable structures. Minor grading and construction could occur in areas with expansive soils but this activity would not create a substantial risk to life or property. Even if structural BMPs that were recommended were located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), they would not create substantial risks to life or property. The structural BMPs that have been identified as the foreseeable means of compliance do not involve moving permanent buildings or people into a new area, and so there would be no risk to life or property created.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Vineyard Permit will not result in any impacts from septic tanks or alternative wastewater disposal systems. Compliance measures associated with the Vineyard Permit would not require the installation of wastewater disposal systems; therefore, affected soils need not be capable of supporting the use of septic tanks or alternative wastewater disposal systems.

VII. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

Background

Gases that trap heat in the atmosphere are called greenhouse gases (GHGs)[25]. The major greenhouse gases of concern include the following:

Carbon dioxide (CO2) -- Carbon dioxide enters the atmosphere through burning fossil fuels (coal, natural gas and oil), solid waste, trees and wood products, and also as a result of certain chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.

Methane (CH4) -- Methane is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

Nitrous oxide (N2O) -- Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Fluorinated gases -- Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are synthetic, powerful greenhouse gases that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes referred to as High Global Warming Potential gases ("High GWP gases").

A statewide GHG inventory conducted by the California Air Board indicates that of the total GHG emissions in California in 2019, the categories of GHG sources rank as follows by percent contribution: transportation (41 percent); industrial processes, including landfills and wastewater treatment (24 percent); commercial and residential fuel uses (15 percent); electricity generation (9 percent) agriculture and forestry (7 percent); and electricity imports (5 percent)[26].

The net GHG emissions in the state increased from 1990 to 2004 by about 12%. The source categories contributing most significantly to the increase in emissions came from electricity generation (19% increase above 1990 contributions from this source category), transportation (21% increase), agriculture and forestry (39%

[25] http://www.epa.gov/climatechange/ghgemissions/gases.html
[26] https://ww2.arb.ca.gov/ghg-inventory-data

increase) and an increase in unspecified emission sources (1161% increase). These increases were balanced by decreases in other source categories, including decreased emissions from commercial and residential fuel uses (13% decrease) and industrial fuel uses (7% decrease). The Global Warming Solutions Act of 2006 (AB 32) calls for the reduction by 2020 of GHG emissions to California's 1990 levels.

In 2006, California passed the California Global Warming Solutions Act of 2006, which requires the California Air Resources Board (CARB) to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas (GHG) emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions). In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The nine early action measures have been documented to reduce California's GHG emissions with an estimated reduction of 13.16 percent from 1990 emissions in the year 201813. As a result of these programs' implementations, California has met its goal to reach 1990 emissions levels by 2020 and had done so by 2016, four years before its proposed target year.[27]

State law requires local agencies to analyze the environmental impact of GHG emissions under CEQA. The Natural Resources Agency adopted the CEQA Guidelines Amendments in 2009. The BAAQMD adopted CEQA thresholds for GHG emissions in the Bay Area in 2010. Both Mendocino and Sonoma County currently have an adopted Climate Action Plan. These plans address projects that would result in long-term, operation increases in GHG emissions.

Discussion of Impacts

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact. Adoption of the Vineyard Permit itself will not cause a direct impact to greenhouse gases (GHGs). Implementation of the compliance measures could result in an increased risk or contribution to greenhouse gases related to exhaust and equipment from vehicles during construction activities such as restoration and alternate water supply construction.

Implementing Vineyard Permit compliance measures could result in an increase in GHGs over baseline conditions if it results in an increase in: fuel use associated

[27] Drotman, C., Huff, R., Le, C., *A Look at CARB's AB32 GHG Programs from Early Action to Today*, July 2021

with transportation, electricity use, and land disposal or composting of waste (including wood and agricultural waste). Greenhouse gas emissions may be generated during short-term construction activities that would occur during installation of certain BMPs to address erosion and stormwater runoff control. However, increasing riparian vegetation will likely result in a decrease in GHGs over baseline conditions as it results in an increase in woody biomass sequestering carbon from the atmosphere. It is important to note that significant beneficial reductions in GHG emissions (carbon sequestration) that would also occur as a result of BMP implementation including increases in the land area under no-till cover crops and/or mulch/soil amendments.

Implementation of BMPs that would result in the construction of linear features, such as roads, would generate short-term GHG emissions. The magnitude of construction activities would vary widely between types of BMPs and, for each type of BMP, would vary widely between individual sites. Typical earth-moving equipment that may be necessary for construction include: graders, scrapers, backhoes, front-end loaders, generators, water trucks and dump trucks. Construction activities would include site preparation, materials transport, grading, trenching, and placement of landscaping and erosion control features.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The Vineyard Permit will be consistent with the State Water Board Resolution No. 2008-0030 which directs Water Board staff to "require…climate change considerations, in all future policies, guidelines, and regulatory actions." Also, the Vineyard Permit are intended to conform with the goals of Assembly Bill (AB) 32 (States, 2005, ch 488). AB 32 requires that GHG emissions be reduced to 1990 levels by 2020. This requirement relates to anthropogenic sources of GHGs. Impact associated with individual site-specific projects will be analyzed and appropriate mitigation implemented to reduce GHGs.

VIII. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Background

A CEQA analysis includes evaluation of the project impacts with respect to the use of hazardous substances, proximity to hazardous waste facilities, proximity to airports, likelihood of interfering with emergency response, and potential to expose people to significant wildfire risk.

Hazardous Materials

Routine operations at vineyard facilities may involve the storage and use of several potentially hazardous materials such as agricultural chemicals and petroleum products. Vineyards typically contain facilities to store and mix agricultural chemicals such as pesticides, fungicides, herbicides, and fertilizers. These chemicals are a potential source of pollution to surface and groundwater if not properly stored, applied, and managed. The production, use, disposal, and management of registered agricultural chemicals used at vineyards and associated farm operations are regulated by County Agricultural Commissioners and California Department of Food and Agriculture (CDFA) and the U.S. EPA. Hazardous chemicals and materials used at existing vineyard or as part of vineyard operations are covered by multiple state and federal laws including Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). The federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is the primary federal regulation overseeing the production and use of beneficial poisons. Hazardous materials business plans (HMBP) are enforced by local county fire and emergency response divisions. California Department of Toxic Substances Control (DTSC) regulates hazardous waste sites that are not within federal jurisdiction.

The proposed Vineyard Permit does not require additional environmental protective measures dealing with hazardous wastes beyond those already being required and enforced under current state or federal laws.

Discussion of Impacts

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant with Mitigation. The proposed Vineyard Permit would require that pesticides be used in accordance with all applicable laws, regulations, and labeling requirements and allows for landowners/operators to meet this requirement through a pesticide certificate issued by the County Agricultural Commission. The County Agricultural Commissioner is authorized to regulate and enforce federal and state laws regulating the storage and use of pesticides.

Some road repair and maintenance can involve the transport and use of materials that would qualify as hazardous pursuant to the California Health and Safety Code section 25501(o). There is the possibility that hazardous materials may be transported to a site and be present during compliance measure construction, installation, and maintenance activities. These materials include gasoline and diesel to fuel equipment, hydraulic fluid associated with equipment operations and machinery, asphalt and oils for road surfacing, and surface stabilizers (e.g. lignin) for running surfaces on unimproved roads. Maintenance yards house fuel, oil (machine, hydraulic, crankcase), chemicals (acids, solvents & degreasers, corrosives, antifreeze), hazardous waste, heavy metals, nutrients, fertilizer, pesticides, herbicides, paint products, and sediments. Fuels and lubricant quantities used to implement selected vineyard BMPs would be small in quantity and their application would be limited to the operation of construction-related equipment and vehicles. These types of hazardous materials are currently used at most vineyards to power farm equipment such as trucks and tractors. Maintenance yard activities have the potential to discharge these materials to stormwater drain systems or watercourses. Some BMPs specifically target proper storage of these types of materials. Dust palliatives and de-icing agents may be used in some instances, but these materials properly applied according to BMPs are not considered hazardous materials. Compliance measures would have the potential for a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.

In order to mitigate the potential adverse effects, pollution prevention and waste management BMPs should be used in the implementation of compliance measures. Existing regulations require the proper storage, handling, and use of these types of materials. The U.S. Forest Service, California Department of Transportation, Five Counties Salmonid Conservation Program in the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity in the North Coast Region, California Association of Storm Water Quality, are just a few of the examples of exiting manuals that provide numerous pollution prevention and waste management BMPs. Many of these manuals include measures to be taken in the event of a spill.

In the event of an accident, responsible parties must comply with the requirements of the California Emergency Management Agency (Cal EMA) Hazardous Materials Spill reporting process. Any significant release or threatened release of a

hazardous material requires immediate reporting by the responsible person to the Cal EMA State Warning Center (800) 852-7550 and the Certified Unified Program Agency (CUPA) or 911. The CUPA may designate a call to 911 as meeting the requirement to call them. Contact information for a jurisdiction's CUPA can be found at:

http://cersapps.calepa.ca.gov/Public/Directory/ or
http://cersapps.calepa.ca.gov/Public/UPAListing.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. Compliance measures would not result in the emission or handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, nor is it located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5. Again, there is the possibility that hazardous materials (e.g., oil, gasoline) may be present during construction and installation activities, but potential risks of exposure would be small, especially with proper handling and storage procedures. All risks of exposure would be short term and would be eliminated with the completion of construction and installation activities.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are numerous airports throughout the North Coast Region, including 3 passenger airports: the Jack McNamara Field Airport in Del Norte County, the Arcata-Eureka Airport in Humboldt County, and the Charles Schultz Airport in Sonoma County. In addition, there are 22 public use airports found in

Cloverdale, Covelo, Eureka (3), Fortuna, Garberville, Gasquet, Gualala, Hayfork, Healdsburg, Hoopa, Hyampom, Klamath Glen, Little River, Sonoma, Trinity Center, Tulelake, Ukiah, Weaverville, and Willits. Some airports are adjacent to, or nearby to vineyards. Regardless of vineyard proximity to these airports, the Vineyard Permit would not require implementation actions on vineyards that could result in increasing existing safety hazards affecting residents residing within the vicinity of these airports nor would they impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, there is no impact.

The North Coast Region is predominantly rural and largely vegetated with grassland, woodland, and forest. The California Department of Forestry and Fire Protection (CalFire) has identified hundreds of North Coast communities at risk from wildfires on either federal or non-federal lands[28]. Further, CalFire has identified at least five communities as existing in a Very High Fire Hazard Severity Zone, including: Cloverdale, Santa Rosa, Ukiah, Willits, and Yreka. As such, the existing risk to North Coast residents from wildfire can be considered high. However, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. Therefore, there is no impact.

IX. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?				X

[28] https://frap.fire.ca.gov/media/10291/commatrisk_19_ada.pdf

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Otherwise substantially degrade water quality?			X	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood				X

Insurance Rate Map or other flood hazard delineation map?				
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?			X	
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
j) Inundation by seiche, tsunami, or mudflow?				X

Background

The State Water Board and the Regional Water Boards are the primary agencies with responsibility for the protection of water quality pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) as codified in Water Code Division 7. The Legislature declared that the activities and factors that may affect the quality of waters of the state shall be regulated to attain the highest water quality that is reasonable, considering all demands being made on it (California Water Code section 13000). Water Code section 13242 requires that a program of implementation for achieving objectives include:

A description of actions necessary for achieving water quality objectives (WQOs), including recommendations for appropriate action by any entity, public or private;

A time schedule for actions to be taken; and

Surveillance to be undertaken to determine compliance with objectives. California Water Code (CWC) section 13260(a)(1) requires that any person discharging waste or proposing to discharge waste within the Regional Water Board's jurisdiction, other than to a community sewer system, that could affect the quality of waters of the state, file a report of waste discharge (ROWD) with the Regional Water Board, unless the Regional Water Board waives such requirement pursuant to CWC section 13269. The Regional Water Board may, at its discretion, issue WDRs pursuant to CWC section 13263(a).

CWC section 13263 (i) authorizes the Regional Water Board to prescribe general WDRs for a category of discharges if:

The discharges are produced by the same or similar operations.

The discharges involve the same or similar types of waste.

The discharges require the same or similar treatment standards.

The discharges are more appropriately regulated under general WDRs than individual WDRs.

The general WDRs implement relevant water quality control plans and take into consideration, among other things, the beneficial uses of water to be protected, the water quality objectives reasonably required for that purpose, and the need to prevent nuisance

The State Water Board's 2004 Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy) states that all non-point source discharges that can affect water quality must be regulated by either WDRs, waivers of WDRs, or prohibitions.

The Basin Plan is the Regional Water Board's master water quality control planning document. It designates beneficial uses and WQOs for waters of the state, including surface waters and groundwater. The Region's TMDLs and associated implementation plans to achieve WQOs are also part of the Basin Plan. Pursuant to the Basin Plan, and Board plans and policies, (including State Water Board Resolution No. 88-63), and consistent with the CWA, the existing and potential beneficial uses of waters in the North Coast Region include:

- 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)

Surface Waters

The surface water quality issues of most concern in the North Coast Region are excess sediment, elevated water temperatures, and excess nutrients. These water quality conditions are the result of point and nonpoint sources of pollution and other controllable factors (e.g., landscape alteration, road building, etc.) and are exacerbated by hydrologic modification, water withdrawal, and the loss of competent riparian zones and floodplains to development, agriculture, and logging.

Approximately 61% of the North Coast Region drains to rivers and streams that are impaired by too much sediment (2006 Clean Water Act Section 303(d) list). Sediment TMDLs have been established by the U.S. EPA 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. The establishment of TMDLs by the U.S. EPA was conducted under the authority of the Clean Water Act and is equivalent to adoption of a TMDL as described in California Code of Regulations, title 14, section 916.9(a)(l). Additionally, several watersheds are identified on the CWA 303(d) list as impaired for sediment.

As part of our efforts to control sediment waste discharges and restore sediment impaired water bodies, the Regional Water Board adopted the TMDL Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region, which is also known as the Sediment TMDL Implementation Policy, on November 29, 2004. This Policy was adopted through Resolution R1-2004-0087.

The Sediment TMDL Implementation Policy states that Regional Water Board staff shall control sediment pollution by using existing permitting and enforcement tools. The goals of the Policy are to control sediment waste discharges to impaired water bodies so that the TMDLs are met, sediment water quality objectives are attained, and beneficial uses are no longer adversely affected by sediment. The Sediment TMDL Implementation Policy also directs staff to develop: (1) the Work Plan, that describes how and when permitting and enforcement tools are to be used; (2) the Guidance Document on Sediment Waste Discharge Control; (3) the Sediment TMDL Implementation Monitoring Strategy; and (4) the Desired Conditions Report.

Vineyards are a source of excess sediment in the North Coast Region, both during and after construction. One ongoing program that addresses excess sediment from vineyards is Fish Friendly Farming (FFF). The FFF program is an incentive-based certification for vineyards and ranches that provides for self-determined compliance

with water quality laws and the ESA. Under FFF, farmers develop a Farm Conservation Plan which includes a property wide inventory of sediment sources, a monitoring plan, and identifies beneficial management practices.

Another program that addresses excess sediment from vineyards is the Sonoma County Vineyard Erosion and Sedimentation Control Ordinance. The Ordinance applies to commercial planting and replanting activities on slopes from zero to 50% in Sonoma County. Requirements include stream/riparian area setbacks of 25' to 50', depending on slope and soil type; development and implementation of erosion control plans to protect disturbed areas, manage storm water runoff, and contain sediment movement; no wintertime vegetation removal, ground disturbance (e.g., discing, grading), or planting; and fees.

Elevated water temperature is a widespread water quality impairment in the North Coast Region. In 2014, the Regional Water Board adopted the Policy for the Implementation of the Water Quality Objectives for Temperature (Temperature Implementation Policy), which specifies that activities with potential to result in water temperature increases shall be addressed on a case-by-case basis to reduce impairments and prevent further impairment. The Temperature Implementation Policy directs staff to examine and address temperature when developing permits. The Temperature Implementation Policy specifies that shade controls are effective at correcting existing temperature impairments and preventing future temperature impairments. At a minimum, any program or permit should implement temperature shade load allocations in areas subject to existing TMDLs, including U.S. EPA-established temperature TMDLs.

To attain and maintain the water quality objectives for temperature, the Regional Water Board will implement programs and collaborate with others in such a manner 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 Implementation Policy requires that factors contributing to elevated water temperatures be addressed when issuing WDRs.

The North Coast Region contains hundreds of miles of rural private and public roads which sometimes serve to extend the drainage network of the Region's watersheds with inadequate, poorly designed, or failing road drainage features. The result, in some watersheds, has been an increase in peak flows or peak flow timing, accompanied by an increased risk of erosion, sedimentation, and flooding. Also, with respect to flooding, many of the watersheds of the North Coast Region are still moving quantities of stored sediment first deposited during catastrophic flooding events of 1955 and 1964. Flooding events of 1982, 1995, and 1997 also have had dramatic impact on North Coast rivers. The California Emergency Management Agency has mapped a tsunami inundation risk for all of Del Norte County, Humboldt County from its border with Del Norte to Ferndale, Mendocino County

from Brunel Point to Gualala, and Sonoma County from Russian Gulch to Bodega Head.

Groundwaters

The North Coast Region is abundant in high quality[29] groundwater resources and includes 63 groundwater basins or subbasins designated by the Department of Water Resources (DWR). A groundwater basin is defined as a hydrogeologic unit containing one large aquifer or several connected and interrelated aquifers. Groundwater is defined as subsurface water in soils and geologic formations that are fully saturated all or part of the year. Groundwater may also exist even where groundwater basins have not been identified such as in fractured rock formations. It also includes areas where saturation of the soils and geology fluctuate, including areas of capillary fringe. Groundwater bearing formations sufficiently permeable to transmit and yield significant quantities of water are called aquifers. In the context of water quality protection, groundwater includes all subsurface waters, whether these waters occur within the classic definition of an aquifer or identified groundwater basins.

As stated in the California 2020 Water Resilience Portfolio, the North Coast Region encompasses nearly 20,000 square miles with about half of the region protected as open space. Groundwater accounts for about one-third of water supply in the North Coast Region and in about half of the groundwater basins, groundwater comprises more than two-thirds of the water supply, with some communities relying solely on groundwater. In the North Coast Region, about 1,000 active public supply wells are regulated by the State Water Resources Control Board (State Water Board) - Division of Drinking Water and approximately 38,000 private domestic wells supply groundwater used for drinking water. Within North Coast groundwater basins, groundwater is nearly half of the water supply for about 250,000 acres of irrigated agricultural land. Generally, groundwater in the North Coast Region is the least degraded in the state. Statewide, salts and nutrients are the most common groundwater pollutants. Naturally occurring manganese, iron, and arsenic commonly occur in groundwater at concentrations requiring treatment before use as drinking water

On April 15, 2021, the Regional Water Board) adopted Resolution R1-2021-0006 Groundwater Basin Evaluation and Prioritization Results Supporting Salt and Nutrient Management Planning as Required by the State Water Resource Control Board Recycled Water Policy. In adopting the Resolution, the Regional Water Board did the following: 1) accepted a process for prioritizing and evaluating

[29] High-quality waters are waterbodies with constituent concentrations that are better than the conditions and values established by water quality objectives necessary for protecting beneficial uses.

groundwater basins; 2) accepted priority basins[30] as having a relatively high threat from salts and nutrients; 3) acknowledged that the priority status of groundwater basins may change and the list of priority basins will be updated a minimum of every five years as required by the Recycled Water Policy; 4) acknowledged that the Recycled Water Policy grants the authority to the Regional Water Board Executive Officer to determine priority groundwater basins for salt and nutrient management planning and to update the list of priority basins; and 5) directed staff to proceed with developing a non-regulatory Policy Statement for Groundwater Protection which outlines a range of strategies to protect high groundwater quality and improve degraded groundwater quality within the region and to present the Policy Statement for Board consideration within the shortest time practicable

California's groundwater basins can provide a crucial buffer against drought and climate change. In times of drought, California is particularly dependent on groundwater which increases the potential for depletion of interconnected surface waters from groundwater pumping. The Sustainable Groundwater Management Act (SGMA) was enacted to address undesirable results caused by excessive groundwater pumping while accounting for population growth, climate change, and sea level rise. SGMA requires Groundwater Sustainability Agencies (GSAs) to adopt sustainability plans for high- and medium-priority groundwater basins. Under SGMA, basins must reach sustainability within 20 years of implementing their plans. The long-term planning required by SGMA will provide a buffer against drought and climate change and contribute to reliable water supplies regardless of weather patterns in the State. As of February 2022, seven GSAs representing North Coast groundwater basins[31] individually submitted Groundwater Sustainability Plans (GSPs) to the Department of Water Resources (DWR) for review and have initiated implementation of their GSPs. The DWR has up to two years to review and consider approving the GSPs. As part of Projects and Management Actions, many North Coast Region GSPs propose Flood Managed Aquifer Recharge, which is to divert surface water during periods of high flow to underground storage in groundwater basins in support of groundwater sustainability.

In about a quarter of North Coast Region, groundwater basins, salts and nutrients are the most common pollutant and in certain areas have caused or threaten to cause an exceedance of water quality objectives and impacts to beneficial uses. Salts are typically measured as total dissolved solids and nitrate is the predominate nutrient of concern. Within the North Coast Region, waste discharges from Onsite Wastewater Treatment Systems (OWTS), agricultural operations, and under-

[30] Priority Basins: Santa Rosa Plain, Smith River Plain, Scott River Valley, Mad River Lowland, Eureka Plain, Eel River Valley, Anderson Valley, Fort Bragg Terrace Area, Ukiah Valley, Sanel Valley, Alexander Area, Cloverdale Area, Healdsburg Area, Rincon Valley, Wilson Grove Formation Highlands, Lower Russian River Valley, Fort Ross Terrace Deposits

[31] Eel River Valley, Butte Valley, Ukiah Valley, Shasta Valley, Scott River Valley, Tulelake, and Santa Rosa Plain.

performing small domestic, municipal, and industrial (including winery) wastewater facilities are believed to be the primary threats to groundwater quality and a primary source of salts and nutrients found in groundwater.

The State Water Board adopted the Policy for Water Quality Control for Recycled Water (Recycled Water Policy) on February 3, 2009, and amended the Policy on January 22, 2013, and December 11, 2018, with an effective date of April 8, 2019. It is the intent of the Recycled Water Policy that salts and nutrients from all sources be managed on a basin-wide or watershed-wide basis in a manner that ensures attainment of water quality objectives and protection of beneficial uses. The State Water Board found that the appropriate way to address salt and nutrient management is through developing regional or sub-regional salt and nutrient management plans rather than through imposing requirements solely on individual projects. The Recycled Water Policy calls for the development of locally driven and controlled collaborative processes open to all stakeholders that will prepare salt and nutrient management plans for each basin/sub-basin in California.

The Regional Water Board finds that a combination of regional management plans and individual or programmatic project requirements are necessary to protect beneficial uses. The Recycled Water Policy recognizes that some groundwater basins in the state contain salts and nutrients exceed or threaten to exceed water quality objectives in the applicable Basin Plans and that not all Basin Plans include adequate implementation procedures for achieving or ensuring compliance with the water quality objectives for salt or nutrients. However, in the absence of an approved salt and nutrient management plan (SNMP), the Regional Water Board may impose specific requirements to ensure the preservation and maintenance of high-quality groundwater.

Existing and potential beneficial uses applicable to groundwater in the Region include, Municipal and Domestic Water Supply (MUN), Agricultural Supply (AGR), Industrial Service Supply (IND), Industrial Process Supply (PRO), Native American Culture (CUL), Freshwater Replenishment to Surface Waters (FRSH), and Aquaculture (AQUA). The Basin Plan also establishes water quality objectives for the protection of these beneficial uses The primary threats to groundwater quality and the beneficial uses of groundwater are excessive salts and nutrients. Irrigation using imported water and/or recycled water is an input to the salt balance for the groundwater basins. Nonpoint sources such as irrigated agriculture and dairies have salt and nutrient loads with the potential to pollute groundwater.

Discussion of Impacts

a) Would the project violate any water quality standards or waste discharge requirements?

No Impact. By requiring the implementation of compliance measures to preserve and maintain shade, control sediment, and control pesticide and nutrient discharges from farms, the Vineyard Permit will have an overall beneficial impact

on water quality in the North Coast Region. Compliance with the Vineyard Permit will not violate any water quality standards or waste discharge requirements.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

d) Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Would the project otherwise substantially degrade water quality?

Less than Significant Impact. Actions to control (attenuate) storm runoff increases also enhance groundwater recharge. BMPs to achieve nutrient and pesticide performance standards would not reduce groundwater recharge: these BMP include calibrating pesticide sprayers, testing plant tissue and soils (for nutrients), applying fertilizers via drip irrigation systems, integrated pest management practices (to reduce use of pesticides), safe storage of pesticides, planting cover crops (which could increase recharge), and/or wellhead protection.

BMPs that may be employed on unpaved roads, by design, will disperse storm runoff that is concentrated by the roads, and as a result, also will enhance infiltration of runoff into soils by reducing runoff velocity, volume, and peak at a given location, and/or by increasing the hillslope length over which the runoff travels, and therefore, contributing to local increases in groundwater recharge These beneficial effects on groundwater recharge would be very large in scale, because unpaved roads could be treated to disperse runoff at hillslope vineyard properties that would be enrolled in the Vineyard Permit.

BMPs that may be employed to stabilize eroding gullies, landslides, and/or head-cutting or down-cutting channels would enhance vegetation cover and local sediment deposition in landslides, gullies, and headwater channels contributing to modest local increases in infiltration of rainfall and/or surface runoff, and consequently modest local enhancement of groundwater recharge.

In vineyards, BMPs that would be employed to enhance ground cover, reduce tillage, and/or slow or detain storm runoff, also would enhance local groundwater recharge. The only other BMPs that could be employed at some new or existing vineyards are diversion ditches and/or engineered subsurface drainage pipes,

which are constructed for the purpose of controlling soil erosion within the vineyard. As compared to the baseline, construction of a diversion ditch and/or installation of subsurface drainage pipes would increase runoff velocity, and as such (when implemented in isolation, without also implementing complimentary measures to spread, sink, or slow the runoff), could result in a local decrease in groundwater recharge.

Diversion ditches, by design, redirect surface runoff that discharges into a vineyard or redirect surface runoff generated within the vineyard. Engineered subsurface drainage pipes are designed to control vineyard soil erosion by intercepting surface sheetflow before it becomes concentrated. Drop inlets installed at the ground surface are connected into the subsurface pipes, which then intercept and rapidly convey runoff through the vineyard. The effects and relative significance of engineered drainage (e.g., diversion ditches and subsurface drainage pipes) as a mechanism or cause of storm runoff increases (and therefore, also decreases in groundwater recharge) are an issue of some controversy (California Court of Appeal, Living Rivers Council vs. State Water Resources Control Board, 2014).

Other significant changes to vegetation and/or soil attributes also have occurred at vineyard properties: a) as part of the process of vineyard development; b) to develop and maintain unpaved roads; and/or c) as a result of intensive historical grazing. Prominent among these changes, in terms of effects on recharge, runoff, and erosion (and also with regard to response potential) are when:

A forest is converted to vineyard, greatly reducing rainfall interception, evapotranspiration, and soil permeability and infiltration capacity.

Where soils and weathered bedrock are deeply ripped - to develop a fairly homogenous, deeper, and more favorable environment for vineyard root growth-, which fundamentally disrupts natural drainage through soil macropores and/or deep infiltration into bedrock.

Use of tractors and other heavy equipment to conduct agricultural activities, which causes soil compaction and also disrupts connections between natural soil macropores.

Development and maintenance of extensive networks of roads (typical road density on vineyard properties is about 4.5 miles per mi^2 of property)[32].

Where hillslope sites were intensively grazed during the historical period, the soil permeability and gullies and shallow landslides often are actively eroding, and/or channels are actively downcutting and/or head-cutting, making these sites extremely vulnerable to additional temporal and/or spatial concentration of runoff

[32] Road cuts intercept subsurface drainage, speeding up runoff rate. Roads also usually change the distribution of runoff along the hillslope, and/or the distribution of mass along a hillslope.

that may occur as a result of vineyard development and agricultural activities.

Therefore, considering all of the above potential causes of storm runoff increases, in developing the Vineyard Permit the Regional Water Board has specified the following performance standards to attenuate storm runoff increases (and also conversely to enhance groundwater recharge) at existing and new hillslope vineyards:

> **Storm runoff from an existing hillside vineyard**: shall not cause or contribute to downstream increases in bed and/or bank erosion. At sites where hillslope vineyards discharge into an unstable area[33] whether or not concentrated runoff from the vineyard is the primary cause or could be a contributing factor to the erosion, as a precaution the Regional Water Board shall require as technically and economically feasible that additional BMPs be implemented to attenuate vineyard storm runoff. For example, these may include no-till cover crops, application of composted mulch, soil amendments to increase organic matter content (e.g., crop residues, manure, and/or compost), installation of level-spreaders, disconnecting existing drainage pipe systems, and/or construction of detention basins and/or wetlands. Also, as technically and economically feasible, the vineyard owner/operator shall implement soil bioengineering and/or biotechnical techniques to control erosion in actively eroding gullies and landslides, and in channel reaches that are down-cutting and/or head-cutting.

In evaluating the potential impacts of engineered drainage on the hydrology of the site, we note that if engineered subsurface drainage pipes are not already in-place, few if any existing vineyards would be expected to install subsurface drainage pipes following adoption of the Vineyard Permit. This is because, except for timing installation with a replant, earth moving, and excavation associated with installation of subsurface drainage pipes would be very disruptive and quite damaging to an existing vineyard. Also, at the time of a replant, if engineered drainage was installed, it would have to meet the performance standards for soil erosion and storm runoff. At existing hillslope vineyards discharging into a gully, landslide, and/or head-cutting or down-cutting channels, to attain the performance standard for storm runoff, additional BMPs to sink, spread, and/or slow runoff would need to be implemented (as technically feasible and economically practicable). Therefore, the net result, as compared to the baseline, would be to enhance groundwater recharge.

At new/proposed vineyards however, it is possible that engineered drainage could be adopted at sites as part of an overall approach/strategy to control vineyard erosion. It is possible that subsurface engineered drainage pipes could be installed on several thousand acres-or-more of new vineyards. However, because all new/proposed hillslope vineyards also must meet the performance standards for

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[33] These include hillslope vineyard discharges into down-cutting and/or head-cutting channels, gullies, and/or or landslides.

storm runoff, at sites where engineered drainage is employed, at worst, the effect on groundwater recharge would be neutral.

Considering all the above, the effect on groundwater recharge of actions taken to comply with the Vineyard Permit at any individual vineyard property at worst would be neutral, and at most vineyard properties would be beneficial - groundwater recharge would increase. At the scale of the project area, the overall effect of compliance actions on groundwater recharge would be beneficial, increasing groundwater recharge.

Several compliance measures could result in the construction of infiltration basins, field leveling or road construction, bioengineering, and in-stream restoration each of these have the potential to cause an alteration of the existing drainage pattern of a site. In most cases however, these measures would be small and be installed with appropriately designed mitigation measures to reduce the alterations of the existing drainage pattern in a manner which would result in a potential for flooding on- or off-site.

As discussed above, the Vineyard Permit requires actions to control sediment discharges and storm runoff increases from farms and roads. The effect on storm runoff of actions taken to comply with the Vineyard Permit at any individual vineyard property at worst would be neutral, and at most vineyard properties would be beneficial – storm runoff would be attenuated. At the scale of the project area, the overall effect of compliance actions on storm runoff would be beneficial, attenuating storm runoff peak.

The Vineyard Permit requires vineyard properties to attain and/or maintain water quality standards. As described above, road sediment discharge, and land-use related channel erosion, gullying, and landslides will all be reduced substantially within the vineyard properties enrolled in the permit. We estimate that approximately 90 percent of planted vineyard acreage property acreage would be enrolled in the permit or otherwise meet sediment and storm runoff discharge performance standards. This represents a substantial contribution toward achievement of the load reductions called for in the sediment TMDLs. Therefore, the effect of the project on attainment of water quality will be beneficial.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. None of the compliance measures identified in this IS would place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

h) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

i) Would the project expose people or structures to a significant risk of loss,

injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. It is possible that compliance with the Vineyard Permit would place structures within a 100-year flood hazard area which could impede or redirect flood flows. Two types of BMPs that may be employed to comply with the Vineyard Permit involve placement of fill in channels: a) storm-proofing road crossing over channels (that could occur when decommissioning a road segment and/or constructing a new storm-proofed road segment); and b) soil bioengineering and/or biotechnical techniques to control erosion in gullies and/or stream channels. Storm-proofing includes upgrading the road crossing to convey the 100-year peak flow as well as the inferred sediment and large woody debris loads. Therefore, where such undersized or failing culverts are in flood hazard areas, the effect of actions taken to comply with the Vineyard Permit would be beneficial (to reduce flooding). Soil bioengineering and/or biotechnical techniques would only be installed or constructed in channels or gullies located on hillslope vineyard properties, none of which overlap with defined flood hazard areas. Therefore, the project would not impede or redirect flood flows in a flood hazard area.

It is possible that detention basins (i.e., small dams) would be constructed at some hillslope vineyard properties to attain the performance standards for storm runoff. Any detention basin with a height ≥ 25 feet and/or a storage capacity ≥ 50 ac-ft, would be subject to permit and inspection programs administered by the California Department of Water Resources, Division of Safety of Dams, developed “to prevent (dam) failure, to safeguard human life, and to protect property from damage” (CA Department of Water Resources, Statutes and Regulations Pertaining to Dams and Reservoirs).

The Division of Safety of Dams has several programs to ensure that jurisdictional dams (height ≥ 25 feet and/or storage ≥ 50 ac-ft) are safe. Division engineers and geologists review dam site conditions, plans and specifications, and dam construction is contingent upon agency approval. During construction, division staff conducts site visits to confirm that the work is consistent with approved plans and specifications. Following construction, dams are inspected annually to confirm that the dam is safe.

In addition to state review and approval of jurisdictional dams, local government reviews and approvals also are required for smaller dams in Sonoma County. Sonoma County requires that plans for a detention basin be prepared by a licensed civil engineer, and that the California Division of Safety of Dams “Guidelines for Small Dams” (Division of Safety of Dams, 1993) be followed in design of such structures, in addition to County requirements for minimum freeboard and compaction of earthen fill (Sonoma County Grading, Drainage, & Vineyard & Orchard Site Development Ordinance, Section11.16.030).

Considering existing state and local regulations, actions taken to comply with the Vineyard Permit, including at some hillslope vineyard properties the construction of

detention basins would not expose people or structures to risk of loss, injury or death involving flooding, including flooding as result of the failure of a levee or dam.

j) Would the project cause inundation by seiche, tsunami, or mudflow?

No Impact. Actions taken to comply with the Vineyard Permit would not affect the location of people or structures as related to risk of loss, injury, or death involving inundation from a seiche, tsunami, or mudflow. The project would not cause an impact.

X. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Background

It is not the intention of this proposed program to interfere with or supersede any land use plan, policy, or regulation of another agency. Any project implemented under this proposed program should be designed in a manner consistent with other applicable land use plans, policies, or regulations.

The Vineyard Permit would apply to Vineyard Properties primarily in Mendocino and Sonoma counties that meet the established eligibility criteria. The zoning ordinances for these counties stipulate requirements for agricultural land uses, including vineyards. The general plan policies relevant to vineyards and water

quality for Mendocino and Sonoma counties are summarized in Tables 2 and 3, respectively.

Mendocino County regulates vineyards in accordance with the Grading Standards and conservation policies within the General Plan (Mendocino, 2009). Growers planting new vineyards, or replanting existing vineyards are required to meet standards within the Mendocino County Code and comply with requirements including BMPs, as established in the Agricultural Commissioner's BMPs guidelines. The County General Plan requires conservation of biotic habitats.

Table 2. Mendocino County Water-Related General Plan Policies

POLICY	PROJECT COMPLIANCE
Policy RM-21: Promote and support agricultural best management practices that protect or enhance surface and groundwater quality.	One main purpose of the Vineyard Permit is to require implementation of best management practices for vineyards that protect or enhance surface and groundwater quality and therefore the Vineyard Permit would be consistent with this policy.
Policy RM-22: Support public and private programs to reduce water contamination and improve the water quality in county rivers and streams, specifically those which do not meet federal water quality standards.	The Vineyard Permit would support the Regional Water Board's efforts to implement a program that reduces water contamination and improves water quality conditions in county rivers and streams and therefore is consistent with this policy.
Policy RM-23: The County shall work with other responsible regulatory agencies to prevent the discharge or threatened discharge of sediment from any activity in amounts deleterious to beneficial uses of the water.	The Regional Water Board's efforts through the adoption and implementation of the Vineyard Permit will include collaboration with Mendocino County and its affiliates to implement a program that prevents the discharge or threatened discharge of sediment from vineyard activities in amounts deleterious to beneficial uses of the water and therefore is consistent with this policy.

Sonoma County has for many years been committed to the conservation of sensitive resources and has been at the forefront of both protecting agricultural land and providing for the conservation of natural resources including surface and groundwater, soils, fisheries, wildlife, important plant species, and habitats. Sonoma County regulates vineyards in accordance with the 2000 Grading,

Drainage, & Vineyard & Orchard Site Development Ordinance, also known as "VESCO." Growers planting new vineyards, orchards or replanting existing vineyards or orchards are required to meet standards within the Sonoma County Code and comply with requirements including BMPs, as established in the Agricultural Commissioner's BMPs guidelines.

The County General Plan requires stream setbacks on all new developments. The setback is determined by slope and soil type. Stream setbacks in areas with gentle slope and more stable soils are 25 feet while steeper slopes with erodible soils require a minimum 50-foot setback. Additional regulations, adopted by the Board of Supervisors in 2012, require that BMPs be implemented for projects that propose to remove more than one half acre of trees on slopes greater than 10 percent or 15 percent, based on soil type. These updated BMPs require slope stability analysis as well as identification of soil types prone to slides. The use of predictive models is also required to show that the development will not increase erosion or sediment delivery from the pre-existing site conditions.

Table 3. Sonoma County Water-related General Plan Policies

POLICY	PROJECT COMPLIANCE
Policy WR-1a: Coordinate with the Regional Water Board, public water suppliers, Cities, Resource Conservation Districts (RCDs), watershed groups, stakeholders and other interested parties to develop and implement public education programs and water quality enhancement activities and provide technical assistance to minimize stormwater pollution, support Regional Water Board requirements and manage related County programs. Where appropriate, utilize watershed planning approaches to resolve water quality problems.	The Vineyard Permit efforts would result in reduced erosion from Vineyard Properties, including their associated road networks, and are therefore consistent with this policy.
Policy WR-1e: Assist in the development of Total Maximum Daily Loads (TMDLs) for the impaired water bodies and pollutants of concern identified by the Regional Water Board to achieve compliance with adopted TMDLs. Work with the Regional Water Board to develop and implement measures consistent with the adopted TMDLs.	One main purpose of the Vineyard Permit is to implement the North Coast Regional sediment TMDL and therefore the Vineyard Permit would be consistent with this policy.

Policy WR-1g: Minimize deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater.	The Vineyard Permit would reduce sediment discharge to surface water bodies and would be consistent with this policy.
Policy WR-1h: Require grading plans to include measures to avoid soil erosion and consider upgrading requirements as needed to avoid sedimentation in stormwater to the maximum extent practicable.	The Vineyard Permit would support the Regional Water Board's efforts to implement BMPs to control soil erosion and sedimentation from Vineyard Properties and is consistent with this policy.
Policy WR-1j: Support educational technical assistance programs for agricultural activities and dissemination of BMPs for erosion and sediment control, which include on-site retention of stormwater, maintaining natural sheetflow and drainage patterns, and avoiding concentrated runoff, particularly on slopes greater than 35 percent.	The Vineyard Permit encourage property owners to work with technical assistance third-party programs, including but not limited to RCDs, the UCCE, and FFF to develop Farm Water Quality Plans and to help implement the requirements of the Vineyard Permit.
Policy WR-4h: Encourage and support conservation for agricultural activities that increase the efficiency of water use for crop irrigation, frost protection and livestock. Work with Regional Water Board and DWR to promote stormwater impoundments for agricultural uses.	The Vineyard Permit requires the sediment control and minimization of erosive, concentrated stormwater flows through the implementation of site-specific BMPs that might include on-site stormwater retention, stormwater dispersion, etc. These actions are consistent with this policy.

Discussion of Impacts

a) Would the project physically divide an established community?

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The Vineyard Permit is not a land use approval regulation and new vineyards will not be approved by this regulation. The Vineyard Permit requires that where vineyards exist or are proposed, the owners/operators of these existing or

proposed vineyards implement BMPs to reduce nonpoint source pollutants and to control erosion, runoff, and sedimentation. These BMPs will not include the construction of large permanent structures or other features that could divide a community, nor would they physically divide an established community. None of the compliance measures identified contemplate the use of non-structural or structural BMPs that would physically divide an established community.

The primary goal of the Vineyard Permit is the protection and restoration of water quality and beneficial uses of water in the North Coast Region. Regional Water Board staff intent to work with local governments to develop strategies to address the prevention, reduction, and mitigation of elevated water temperatures, including, but not limited to, riparian ordinances, general plans, and other management policies. Therefore, it is unlikely that compliance with the Vineyard Permit would conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Depending on the structural compliance measures selected, direct or indirect impacts to existing fish or wildlife habitat may occur; however, any such impact would be temporary. Compliance measures that may not have an impact when implemented in one area could potentially have an impact if they are implemented in a sensitive area. For instance, the construction of a compliance measure such as an off-channel water storage facility could be in an identified habit conservation area. Therefore, when installing structural compliance that may include substantial earth movement, responsible parties will be required under their applicable permit (or as necessary to comply with applicable prohibitions), to consult with various Federal, State and local agencies, including but not limited to the county the project is located in, CDFG and the USFWS.

Typically, Regional Water Board staff work with other agencies and project proponents on the development of Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP) to ensure compliance with all regulations. If appropriate to avoid conflicts with any HCP or NCCP, the timing and/or location of the BMPs may be adjusted to reduce any potential conflict with any such plans. If, however, such adjustments could not be made, the compliance measures would have to be changed to avoid any adverse impacts to rare, threatened or endangered species, or the discharge would not be permitted to occur. Because of these mitigation requirements, conflict with the provisions of an adopted HCP or NCCP is not likely to occur.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Background

As elsewhere in the State, the North Coast Region was substantially impacted by the presence of precious metals, particularly in the Klamath Geomorphic Province where hundreds of gold claims were exercised and where suction dredging is still of interest. Abandoned mines in the Klamath Basin are the focus of cleanup. Further, sand, gravel and other aggregate is a substantial commodity in the North Coast Region, whose extraction has the potential to impact numerous watersheds in the Region.

The California Surface Mining and Reclamation Act of 1975 (SMARA) required identification of mineral resources in California. The California Department of Conservation is the state agency responsible for implementing and enforcing SMARA regulations and preparing SMARA maps of significant mineral resources in each county. SMARA maps exist for Sonoma County within the project area and identify and classify mineral resources as to their relative value for extraction[34].

Sonoma County has adopted the Aggregate Resources Management (ARM) Plan, a plan for obtaining future supplies of aggregate material (Sonoma County, 2010). The ARM plan serves as the state-mandated mineral management policy for the county and is intended to accomplish the mandated purposes.

Discussion of Impacts

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

[34] https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. Compliance with the Vineyard Permit may include minor earthmoving during grading for road rehabilitation, culvert repair and replacement and construction of small structures. These projects would be relatively small in scale and would not result in the loss of availability of a known mineral resource or physically preclude future mining activities from occurring. None of the compliance measures identified contemplate the use of non-structural or structural BMPs that would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

XII. NOISE

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			X	

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

Background

The North Coast Region is substantially rural, with a limited number of larger communities, the largest being Santa Rosa and its surrounding communities in Sonoma County. As a general matter, noise pollution is limited to localized areas. Any project implemented under this proposed program should be designed to avoid, minimize, or mitigate any potential noise impacts.

Vineyard Properties meeting the eligibility criteria for coverage under the Vineyard Permit are usually located in rural areas that are typically large open landscapes where main noise sources are from seasonal agricultural activities and nearby public roads and highways. Small airports are in each watershed, and they may also be an intermittent noise source. Furthermore, Vineyard Properties covered under the Vineyard Permit would typically consist of larger land parcels that are mostly located away from schools, hospitals, and other sensitive land uses. Residential uses in agriculturally zoning districts are very low density, consisting typically of only a few residences on each of the larger vineyard parcels.

Adoption of the Vineyard Permit may result in an increase in implementation of projects that could involve minor grading and construction (e.g., road rehabilitation project and construction of detention basins) that may result in local, temporary, construction-related noise emissions above ambient noise levels. Increased noise levels would be limited to the immediate area of grading operation and construction site. Increased noise levels would be limited to the immediate area of grading operation and construction site and would not expose sensitive receptors to harmful levels of noise, likely to be located substantial distances from eligible vineyard properties. BMPs to comply with the Vineyard Permit would not result in any on-going new noise sources.

Mendocino and Sonoma County General Plans have noise ordinances or noise elements that address acceptable community noise levels (Mendocino County

2009, Sonoma County 2020). The Mendocino County Health and Safety Code has established limits for exterior noise; these limits vary depending on land use and range from 40 decibels for rural residential areas to 75 decibels for industrial areas. The Sonoma County Exterior Noise Limit Standards describes thresholds for exterior noise during the daytime and nighttime. These standards allow for a maximum exterior noise level of 70 decibels, with the average over a one-hour time period not exceeding 50 decibels during the daytime. The nighttime allowable noise ranges from 45 to 65 decibels.

Discussion of Impacts

a) Would the project exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b) Would the project exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

c) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

d) Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant. The Vineyard Permit could involve earthmoving and construction activities by vineyard owners. Construction would generally be small in scale, short-term in duration, and could temporarily generate noise above ambient levels. Increased noise levels would likely be associated with heavy equipment operation associated with construction of structural compliance measures.

For example, noise levels from activities such as road construction and/or maintenance would not exceed the existing levels and the loudest activities from other construction actions can be planned during peak daily noise. Construction timing, equipment types, and noise-generating operations at construction sites for projects to comply with the Vineyard Permit would have to be consistent with the respective local counties' own noise standards. Therefore, construction activities that may result from compliance with the Vineyard Permit would not result in substantial noise, and the impacts would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The General WDRs would not cause any permanent increase in ambient noise levels, including aircraft noise. None of the compliance measures use of structural BMPs that would likely be located within an airport land use plan or within two miles of a public airport or public use airport. The use of heavy equipment for the construction and installation of some structural BMPs could result in temporary increases in existing noise levels, but the noise associated with heavy equipment use is not any louder than noises that would typically occur within the vicinity of a private airstrip. Therefore, it would not expose people living within an area subject to an airport land use plan to excessive noise and thus, no impact would occur.

XIII. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

Background

Implementation of the Vineyard Permit would occur in areas where the dominant land use is agriculture. Vineyard Properties typically contain structures including one or more residences, equipment sheds, wells, roads, and road crossings.

Discussion of Impacts

a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

b) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. Actions to implement the Vineyard Permit would not affect the population of the North Coast Region. None of the compliance measures inlcude the use of structural BMPs that would induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). None of the compliance measures identified use structural BMPs that would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. None of the compliance measures identified would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere Vineyard Permit

XIV. PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Fire protection?			X	
Police protection?				X
Schools?				X
Parks?				X
Other public facilities				X

Background

This section characterizes existing and proposed public services in Russian River and Navarro River watersheds and evaluates changes that may result from actions to comply with the Vineyard Permit. Public services include services that address community needs and are usually provided by local or regional government, although they may be provided through private contracts. Public services include fire and emergency response, police protection, airports, schools, libraries, and

parks.

Mendocino County: The County of Mendocino has twenty local fire agencies with a total of 47 stations of which two are volunteer, and one station contracted with the California Department of Forestry and Fire Protection for protection services operating under a County Fire Plan. The Mendocino County Fire Department provides fire and emergency service dispatching for the Leggett, Long Valley, Piercy, Westport Water District, Fort Bragg Rural, Mendocino, Albion Little River, Comptche Community Services District (CSD), Elk CSD, Redwood Coast, South Coast, Brooktrails CSD, Anderson Valley CSD, Sanel Valley, Ukiah Valley, Redwood Valley Calpella, Potter Valley CSD, and Little Lake Fire Districts.

The Mendocino Sheriff's Office maintains two substations, one in Willits and one in Fort Bragg, and one main office in Ukiah. Within the County limits are four incorporated cities and towns. These include Fort Bragg, Point Arena, Ukiah, and Willits. The Sheriff's Office provides police services for Willits, Fort Bragg, and Ukiah.

Sonoma County. Land located in unincorporated Sonoma County is under the jurisdiction of the Sonoma County Department of Emergency Services, Fire Services Division, and County Service Area (CSA) #40. Fifteen volunteer fire companies comprise CSA #40. In addition, 17 Fire Protection Districts are operated by the Fire Division of the Department of Emergency Services. Additional fire protection in the unincorporated areas of the county is provided by the California Department of Forestry and Fire Protection. Emergency Medical Service (EMS) systems in Sonoma County is a blend of First Responder agencies, ground and air ambulance providers, EMS – Fire Dispatch Center, and acute care receiving facilities. Unincorporated Sonoma County receives police protection and coroner and correctional services from the Sonoma County Sheriff's Department. The Sheriff maintains 24-hour patrol from five substations and a main office. Peace officers work in patrol, administration, the helicopter unit, boating, civil bureau, and investigations. The City of Santa Rosa, Sebastopol, Healdsburg, Rohnert Park, and Windsor provide police services in their jurisdiction.

Discussion of Impacts

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: i) Fire protection

Less Than Significant. Logically, the increase in riparian vegetation increases the fuel loads for wildfires. While fuel loads do not cause fires, the increasing mass available can increase the severity of a fire and could impact the demand on fire

protection services. Allowing for the removal or thinning of upland vegetation that has high evapotranspiration rates and increases fire risks could be a mitigation measure that results in multiple benefits to the environment. However, during the 2017 Tubbs and Nuns Fires and the 2018 Kincade Fire several vineyards acted as fire breaks. Fire officials have stated they considered the relatively open space of vineyards, which hold more moisture than oak forests, to be a natural firebreak that allowed their forces to concentrate on protecting populated areas and structures. Fire crews use the vineyards to their advantage to ensure that they can stop the spread of the fire or stop the front of the fire from coming through (Cal Fire 2017). Therefore, the pontifical impacts to fire protection public services is less than significant.

ii) Police protection; iii) Schools; iv) Parks; v) Other public services

No Impact. The Vineyard Permit would not result in adverse impacts on police services or on schools and parks since the Vineyard Permit are not growth inducing nor do they involve construction of substantial new government facilities or the need for physically altered government facilities. While the Vineyard Permit include provisions that may result in construction activity on roads or elimination of some unused roads on Vineyard Properties, the Vineyard Permit require work on private roads only and would not affect roads used for public safety or fire protection service vehicles. Actions to comply with road-specific water quality requirements in the Vineyard Permit, such as road resurfacing and the installation of rolling dips and water bars, would not limit emergency access to private property. Therefore, the Vineyard Permit would not result in changes to roadway networks on private property that would affect service routes, response times, or other performance objectives for any public services. The Vineyard Permit does not involve new or physically altered government facilities. Because the proposed project does not involve these elements, therefore, the appropriate finding is no impact.

XV. RECREATION

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

Background

The Regional Water Board implements water quality protection programs designed to result in water quality suitable for full contact water recreation such as swimming and surfing (REC-1), as well as non-contact water recreation (REC-2). Other beneficial uses potentially relevant to recreational uses include Navigation (NAV), Commercial and Sport Fishing (COMM), and Shellfish Harvesting (SHELL). As a predominantly rural region, the North Coast Region offers a multitude of recreational opportunities in addition to water-related activities, including camping, hiking, backpacking, horseback riding, bike riding, bird watching, and much more.

The California Department of Parks and Recreation, Sonoma County Agricultural Preservation and Open Space District, Mendocino County Land Trust, municipalities, and other private parties support, own, and/or operate numerous park and recreational facilities in the counties. These facilities provide a variety of outdoor recreational, educational, and sporting opportunities for local residents and visitors for around the world. The open space surrounding these parks and the many vineyards are an integral part of the rural agricultural and open space experience.

Discussion of Impacts

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. Actions to comply with the Vineyard Permit would affect only vineyard facilities and private roads and would have no effect on existing neighborhood and regional parks or other recreational facilities. Therefore, no impacts would occur.

XVI. TRANSPORTATION/TRAFFIC

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b) Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g.,				X

bus turnouts, bicycle racks)?				

Background

The North Coast Region is serviced by Districts 1, 2, and 4 of the California Department of Transportation (CalTrans). Highway 101 is the major highway corridor from north to south and Highways 128, 20, 162, 36, 299, and 199 are the major highway corridors from west to east. These highway corridors are two and four lane highways, vulnerable to traffic delays when road work is undertaken.

Highways 101 and 128 are the main highways through the Russian River and Navarro River watersheds. State Highway 128 traverses much of the Navarro watershed, paralleling Rancheria Creek and the mainstem Navarro River for approximately 25 miles. Highway 101 is the main highway traversing through the Russian River watershed. Highway 101 connects Sonoma and Mendocino counties. Highway 128 connects to Highway 101 just north of Cloverdale and heads north-west to the coast. Outside of urban areas, most roadways are two-lane rural roads.

The Vineyard Permit requirements could result in modifications to vineyard property roadway networks that are owned and under the control of private landowners and operators and would not affect public roads or maintenance easements.

Discussion of Impacts

a) Would the project exceed the capacity of the existing circulation system, based on applicable measures of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Would the project conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures and other standards established by the county congestion management agency for designated roads or highways?

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

e) Would the project result in inadequate emergency access?

f) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact. The Vineyard Permit may result in an increase in truck traffic. Where BMPs require construction to erect small structures, modify roadway networks, or install detention ponds, minor short-term additional vehicular traffic could increase on individual vineyard parcels. Construction may require importing construction materials such as gravel, pipe, rock, or cement and would require the use of heavy equipment and trucks to move soil, logs, or other materials needed for road repair and/or stream crossings. Minor construction-related truck traffic is likely to be limited in number and duration, be in rural settings, and would likely not occur during peak traffic periods. Any increase in traffic would be minor, temporary and would be limited to local areas in the vicinity of individual projects and would not create substantial traffic increases on existing street systems. Construction activities have the potential to increase traffic volumes or reduce speeds on public roads. However, no road design or construction hazards would occur or result in roads that are incompatible with vineyard operational uses..

The proposed project does not involve installation of hazardous design features and will not affect emergency access or parking capacity. The proposed Vineyard Permit would not result in increased air travel or otherwise affect air travel. The proposed project will not conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Because the proposed project does not involve these elements, the appropriate finding no impact.

XVII. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X

c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				

Background

The point source discharge of waste to waters of the Region is prohibited except in the Mad, the Eel, and Russian rivers during the wet weather season. All other wastewater treatment is provided by percolation ponds, evaporation ponds, or other land disposal, including septic systems. Discharge to the Mad, Eel and Russian rivers is further limited to 1% of river flow. Many of the wastewater treatment systems, including septic systems, in the North Coast Region are very old and require upgrade.

Water is abundant in many parts of the North Coast Region. According to Methany et. al. (2011), community water delivery systems in the North Coast Region provide good drinking water to their customers. Many residents of the North Coast Region, however, rely on private domestic wells, surface water intakes, or small community systems; except in localized areas, water availability is generally good and is

sometimes consumed untreated. The Regional Water Board implements water quality protection programs designed to result in water resources which are suitable as drinking water, as defined by the Municipal and Domestic Supply (MUN) beneficial use.

The Regional Water Board oversees implementation of NPDES permits for the control of stormwater from industrial facilities, construction sites, and municipalities. These primarily rely on BMPs to avoid, reduce and mitigate the impacts of stormwater discharge. The City of Santa Rosa, Sonoma County, and Sonoma County Water Agency implement an extensive stormwater control program under their MS4 permit issued by the Regional Water Board.

All the landfills in the North Coast Region have been closed, except the Meecham Road Landfill in Sonoma County. Transfer stations are operated throughout the rest of the region with much of the waste material transferred outside the Region for disposal.

Mendocino and Sonoma counties are fully served by public services including fire and police protection, schools, parks, wastewater treatment plants, and other public facilities (refer to discussion in Section XIV above). In Mendocino County, water supply is provided by municipal dams and groundwater wells. Surface water supplies include the Eel River, from which water is diverted into the Russian River watershed through the Potter Valley Project, Lake Mendocino, and the Russian River. Groundwater is drawn from the Ukiah Valley groundwater basin. In Sonoma County, the Sonoma County Water Agency provides surface and groundwater derived mainly from the Russian River watershed.

Discussion of Impacts

a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

c) Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The Vineyard Permit does not include changes to wastewater treatment facilities and will not have any effect on wastewater treatment requirements. Compliance measures would not include construction of new or expanded municipal stormwater drainage facilities or other drainage system affecting any non-agricultural activities and no impacts would occur. The changes to vineyard and road drainage systems that would result from the Vineyard Permit would reduce erosion, sedimentation, peak runoff, and flooding, all beneficial environmental effects.

The Vineyard Permit would not increase population or provide employment; therefore, it would not require an ongoing water supply. It would also not require ongoing wastewater treatment services a would not substantially affect municipal solid waste generation or landfill capacities; therefore, no impacts would occur.

The use of cover crops may require additional irrigation water but may also result in reduced evaporation from soil surfaces, resulting in no or little net change in irrigation water needs. Improved irrigation efficiency, one of the principle means of reducing agricultural discharges, will likely result in water savings.

None of the Vineyard Permit compliance measures are likely to generate a significant source of solid waste. Construction and implementation of structural BMPs may generate solid wastes requiring disposal such as earthen material or erosion control materials (e.g. silt fences, temporary fencing, rusted out culverts). The amount of waste needing disposal, however, will be very minimal, and could therefore be served by an existing landfill. The potential practices that could be applied by growers should not result in any changes in the generation of solid waste and therefore should not affect compliance with federal, state, or local statutes and regulations related to solid waste. Therefore, the appropriate finding is no impact.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X			
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

Background

The Vineyard Permit permits discharges from existing and future Vineyard Properties. Compliance measures that may be implemented by Landowners/Operators on Vineyard Properties to comply with the Vineyard Permit may have a physical impact on the environment. Other actions within Sonoma and Mendocino counties under the existing water quality and resource conservation regulations that may, together with the Vineyard Permit, effect the environment, are listed below.

Mendocino County Conservation Regulations

Mendocino County General Plan Water Resources Element Policies

Sonoma County Vineyard Erosion and Sediment Control Ordinance (VESCO)

Sonoma County Stream Setback Ordinance

Sonoma County Tree Removal Ordinance

Sonoma County Biotic Resources Ordinance

Sonoma County General Plan Water Resources Element Policies

The adoption of the Vineyard Permit would not result in the relaxation of water quality standards and would reduce nonpoint source pollutant discharge from existing vineyard areas and roads (existing conditions). New vineyards covered by the Vineyard Permit would not be allowed to increase erosion and runoff.

Discussion of Impacts

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation. Compliance measures to meet the requirements of the Vineyard Permit will likely improve water quality from the current baseline in the watershed.

Compliance measures that require substantial earth movement would likely undergo consultation with federal, state, and local agencies, including but not limited to the county the project is in, CDFW, and the U.S. FWS. Specific mitigation measures would be applied by the agencies to avoid impacts to rare, threatened, or endangered species. In most cases the impacts of installing structural compliance measures would be temporary, and any impacts could be avoided by adjusting the timing and/or location to consider any candidate, sensitive, or special status species or their habitats. See section X.D.IV Biological Resources for more discussion of potential impacts to fish and wildlife.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact. Cumulative impacts, defined in section 15355 of the CEQA Guidelines, refer to two or more individual effects, that when considered together, are considerable or that increase other environmental impacts. Cumulative impact assessment must consider not only the impacts of the Vineyard

Permit but also the impacts from other regulatory, municipal, and private projects, which have occurred in the past, are presently occurring, and may occur in the future, in the watershed during the period of implementation.

Non-structural compliance measures that may be implemented are not likely to have cumulative impacts on the environment. Impacts associated with implementation of most of the structural measures will be short-term, temporary, and spatially distributed across the watershed, and will not have significant adverse effects on the environment. Compliance measures that involve substantial earth movement could have potentially significant cumulative impacts. However, many of these activities will be regulated under existing State and Regional permits, including but not limited to state-wide Caltrans stormwater permit, stormwater permit for construction sites over one (1) acre, or timber harvest operations on public and private lands. The likelihood of installation of structural compliance measures on federal land is quite high as approximately 55% of the region is in federal ownership. Regional Water Board staff's engagement in these regulatory programs will provide an opportunity to limit the potential for cumulative impacts by ensuring that multiple projects proposing implementation of BMPs with the potential to cause short-term impacts are phased appropriately to limit potential cumulative impacts.

Based on a review of the available information, and as a result of implementing the range of compliance measures from the preservation of shade to sediment controls, significant impacts could occur. These impacts include removing some agricultural lands from production, elevated exhaust levels, fugitive dust, vehicle emissions, land disturbances that could adversely affect cultural resources. Most of these impacts are expected to be short term. Individual project specific CEQA review will be necessary in those cases as appropriate. Many can and will be mitigated to less than significant levels with the implementation of specific mitigation measures..

Notwithstanding the potential significant effects discussed above and throughout this Initial Study, it is likely that long term beneficial effects will be realized on aesthetic resources, biological resources, geology and soils, GHG emissions, hydrology and water quality, and recreation.

c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Less Than Significant with Mitigation. As explained previously, the Vineyard Permit are designed to improve long term water quality by providing a regulatory program designed to protect and restore water quality and the beneficial uses of water in the North Coast Region. Based on the analysis provided in this Initial Study there are potential impacts that could adversely effect humans associated with elevated exhaust levels, fugitive dust, vehicle emissions, and land disturbances that may adversely affect cultural resources. However, implementing mitigation measures to reduce dust, emissions, and cultural resources will likely prevent these potential impacts to less than significant. Also, it is unlikely that all the vineyards in the North

Coast Region will simultaneously implement BMPs that result in the use of heavy equipment to achieve compliance with the Vineyard Permit and therefore generate levels of emissions, dust, or particulate matter above baseline levels that cause a significant adverse effect to nearby receptors. For cultural resources, if ground disturbing activities uncover previously undiscovered or documented resources implementing mitigation measures including cultural resources investigations and proper notifications to the California Historical Resources Information System will likely reduce the level of impact to less than significant.

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