

**INITIAL STUDY AND
PROPOSED MITIGATED NEGATIVE DECLARATION**

**CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS
FOR
DISCHARGES FROM VINEYARD PROPERTIES IN THE
NAPA RIVER AND SONOMA CREEK WATERSHEDS**

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November 16, 2012

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1. INTRODUCTION

This Initial Study Mitigated Negative Declaration has been prepared pursuant to the California Environmental Quality Act of 1970 (CEQA), and State CEQA Guidelines (California Code of Regulations CCR, Title 14, Div. 6, Chap. 3) and the State Water Resources Control Board's CEQA regulations (CCR, Title 23, Section 3720 -3782). The Lead Agency for the project, as defined by CEQA, is the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

The proposed project consists of establishing a Conditional Waiver of Waste Discharge Requirements (Conditional Waiver) for discharge from existing and future vineyard properties in the Napa River and Sonoma Creek watersheds that meet certain criteria (Table 1) relative to size and slope. The project is consistent with the State Water Resources Control Board's (State Water 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 waste discharge requirements (WDRs), through waivers of WDRs, or through prohibitions.

Until this time, potential water quality degradation from vineyard operations in the Napa River and Sonoma Creek watersheds has not been regulated by the Water Board. If improperly managed, vineyard operations can pose threats to surface and groundwater and stormwater runoff may result in soil erosion and contribute excess sediment to nearby streams. Stormwater runoff from vineyards may also carry pollutants such as agricultural pesticides and fertilizers to receiving waters.

The Conditional Waiver establishes a regulatory mechanism to reduce and control erosion and discharges of pollutants from existing vineyards, vineyard replants, and new vineyards provided that management practices are implemented so that discharge will meet the Water Quality Control Plan for San Francisco Bay Basin (Basin Plan) requirements, including Total Maximum Daily Loads (TMDLs) for sediment in the Napa River and Sonoma Creek.

This Initial Study/Mitigated Negative Declaration (IS/MND) analysis considers the potential environmental impacts of the Conditional Waiver including:

- Implementation of management practices and changes in vineyard operations that may be employed by landowners/operators to comply with the Conditional Waiver
- Establishment of stream setbacks, a possible volunteer action driven by incentives contained in the Conditional Waiver
- Discharges from new vineyards
- Environmental changes resulting from long-term compliance with the Conditional Waiver

All potential impacts of the Conditional Waiver are evaluated relative to the existing physical conditions describe in the Existing Setting section, "baseline conditions," below. This environmental analysis assumes that the types of on-the-ground actions that are undertaken by landowners/operators subject to the Conditional Waiver would be consistent with the commonly used and effective management practices. Furthermore, only discharges from new vineyards that are reasonably likely to be approved during the 5-year term of the Conditional Waiver are considered in this IS/MND. The potential environmental impacts of discharges from vineyard

properties that are not eligible for coverage under the Conditional Waiver are not evaluated in this IS/MND.

Consistent with definitions contained in the Conditional Waiver, and for the purposes of this IS/MND, the term “vineyard property” includes the vineyard facility as well as all roads on the property. 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 operated under an industrial stormwater permit or other land uses already regulated under other WDRs or waiver of WDRs.

Also consistent with the definitions contained in the Conditional Waiver, for the purpose of this IS/MND, a “landowner/operator” is defined as a landowner and/or operator of a vineyard property meeting the size and slope thresholds in the Conditional Waiver in the Napa River or Sonoma Creek watersheds.

Table 1. Summary of Conditional Waiver Eligibility, Exclusion, and Exemption Criteria

Site Conditions	Conditional Waiver Definition	Covered by Conditional Waiver	Not covered by Conditional Waiver	Exempted from Conditional Waiver	Excluded from Conditional Waiver
		<i>Requirement</i>	<i>Requirement</i>	<i>Requirement</i>	<i>Requirement</i>
		<i>Submit a NOI & comply with Conditional Waiver</i>	<i>Not required to seek coverage under the Conditional Waiver</i>	<i>Submit a NONA & stream setback documentation</i>	<i>Submit a ROWD</i>
Small Vineyard	Vineyard < 5 acres, regardless of slope or parcel size.		X		
Small Parcel	Parcels < 40 acres that contain flat land ¹ vineyards. Parcels < 20 acres that contain hillside ² vineyards.		X		
Flat Land¹	Parcels 40 acres or more with vineyard facilities on slopes < 5 percent.	X			
Flat Land with Stream Setbacks	Slopes < 5 percent (regardless of parcel size) with established stream setbacks as defined in the Conditional Waiver.			X	
Hillside Vineyard²	Parcels > 20 acres with vineyard facilities on slopes ≥5 percent.	X			
Steep Slopes	New and replanted vineyards on slopes ≥30 percent where soils have a “high” or “very high” erosion potential				X
Cannot or fails to meet Conditional Waiver	New, replanted, or existing vineyards (regardless of size or slope) that cannot or fails to meet Conditional Waiver to achieve water quality standards				X

¹ Flatland vineyards are vineyard facilities with slopes less than 5 percent

² Hillside vineyards are vineyard facilities with slopes greater than 5 percent

2. SUMMARY

Project Summary

The Conditional Waiver implements the Napa River and Sonoma Creek sediment TMDLs with the overarching goals of reducing nonpoint source pollutant discharges from vineyard properties and protecting and enhancing beneficial uses, including the protection of anadromous fish habitat.

The Conditional Waiver applies to a group of existing and new vineyards with specific size, slope, and soil type that meet the eligibility requirements as shown on Table 1. The Conditional Waiver does not apply to new or replanted vineyards on highly erosive soils that are located on slopes of 30 percent or greater (these vineyards would be evaluated under individual permits). Furthermore, the Conditional Waiver provides for exclusions for vineyard properties that contain adequate stream setbacks.

The Conditional Waiver would require the landowners/operators of eligible vineyard properties to:

- Seek coverage under the Conditional Waiver by submitting a Notice of Intent (NOI) to comply to the Water Board
- Develop a Farm Water Quality Plan
- Implement and maintain management practices and other improvement projects as specified in the Farm Water Quality Plan
- Conduct vineyard property site inspections and compliance monitoring
- Submit an Annual Compliance Form to the Water Board

This IS/MND evaluates the environmental impacts of physical changes resulting from possible actions to comply with the Conditional Waiver that, over time, will result in reduction in erosion, sedimentation, and storm runoff from vineyard properties. These changes will occur gradually as landowners/operators continue to implement, in increasing numbers and on a watershed-wide basis, the management practices suggested in Attachment E of the Conditional Waiver. Potentially significant impacts, associated mitigation measures, and possible changes to the physical environment are summarized and listed in Tables 2 and 3.

As more fully discussed in the response to the initial study checklist questions, adoption of the Conditional Waiver will result in:

- Improvements to the environment including reductions in fine sediment input to channels and enhancement of fish habitat conditions
- Implementation of some management practices that may have the potential for associated short-term physical changes to the environment during their construction phases, but no long-term, permanent changes in land use, community structure, pollution, or public services
- No increases in stormwater runoff rates above existing conditions, or any other long term adverse environmental impacts

Summary of Impacts and Mitigation Measures

The Conditional Waiver will result in increases in the use of management practices and construction of structural controls (such as cover crops, small structures for mixing and storing agricultural chemicals, drainage facilities, erosion control facilities, and stormwater runoff controls) to meet water quality requirements. These changes will occur gradually as landowners/operators continue to implement, in increasing numbers and on a watershed-wide basis, the management practices suggested in Attachment E. Implementation of management practices could result in short-term impacts related to construction activities (grading, vegetation removal, stockpiling soils, and mobilizing heavy equipment).

Adoption of the Conditional Waiver would result in “No Impacts” in the following CEQA topic areas:

- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Traffic
- Utilities and Services

Adoption of the Conditional Waiver could result in “Less-than-Significant Impacts” in the following CEQA topic areas as a result of short-term construction-related impacts and, in the case of agricultural resources, due to the potential of the Conditional Waiver to increase the width and the connectivity of riparian buffers:

- Aesthetics
- Air Quality
- Agriculture
- Geology and Soils
- Greenhouse Gas emissions
- Hazardous Materials
- Hydrology and Water Quality
- Noise

In a few, low probability cases, construction in and near a stream channel could result in potentially significant construction-related impacts that would be mitigated to a less-than-significant level by mitigation measures (Table 2) required in the IS/MND and incorporated into the Conditional Waiver in the following resource areas:

- Biological Resources
- Cultural Resources

Table 2. Summary of Potentially Significant Impacts and Conditional Waiver Mitigation Measures

Impact	Mitigation Measure required by Conditional Waiver
<p>Biological Resources Impact IV-1: Management practices to repair and replace culverts, improve road stream crossings, and repair or control bank erosion could require construction in stream channels or riparian areas could affect Chinook salmon and Central California Coast steelhead, both listed as threatened species and protected by the Endangered Species Act, and other sensitive aquatic species.</p>	<p>Mitigation Measure IV-1: Landowners/operators conducting road repair at streams, culvert repair, or bank stabilization shall identify all applicable regulations and obtain all required permits or agency consultations prior to initiating construction. Landowners/operators shall obtain permits from the Water Board and all applicable agencies including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game for approval. Landowners/Operators must construct projects as approved in the applicable permits and implement all avoidance measures, conservation management practices or other mitigation measures stipulated in these permits or approvals.</p>
<p>Biological Resources Impact IV-2: Actions to implement the Conditional Waiver may result in potentially significant impacts to sensitive natural communities if construction occurs in the stream channel or riparian area (e.g. repair and replacement of culverts, road stream crossings, bank erosion control etc.).</p>	<p>Implementation of Mitigation Measures IV-1, above, and IV-3, below would reduce potential impacts to riparian and wetland natural communities to a less-than-significant level.</p>
<p>Biological Resources Impacts IV-3: Management practices that involve the repair and replacement of culverts, road stream crossings, bank erosion control, etc., may impact federally protected wetlands on or near riparian areas.</p>	<p>Mitigation Measure IV-3: Landowners/operators conducting road repair at streams, culvert repair, bank stabilization, or other activities that involve excavation, fill, or hydrologic interruption (dewatering) in federally or state-protected riparian or wetland areas, including vernal pools and marshes, shall obtain authorization from the U.S. Army Corps of Engineers in accordance with Section 404 of the Clean Water Act and shall obtain Water Quality Certification from the Water Board in accordance with Section 401 of the Clean Water Act prior to initiating construction. Landowners/operators must construct projects as approved in applicable permits and implement all avoidance measures, conservation management practices or other mitigation measures stipulated in these permits or approvals.</p>

<p>Cultural Resources Impact V-1:</p> <p>Management practices taken to comply with the Conditional Waiver that involve deep excavation during construction (e.g. extensive road repair, replacement of large culverts or construction of large detention basins) could result in potentially significant impacts to archeological resources, if Native American artifacts are uncovered.</p>	<p>Mitigation Measure V-1: Landowners/operators undertaking large-scale road repair projects that require deep excavation, erosion control management measures that involve excavation in and adjacent to stream channels or in riparian or wetlands areas, or that propose deep excavation for large detention basins that could uncover or disturb Native American artifacts shall:</p> <ul style="list-style-type: none"> • Minimize the amount (width and depth) of excavation needed to achieve the desired contour, employ road cover fill techniques and processes (burial) for roads and other sensitive areas near creeks, at the base of hills, or where archeological artifacts are known to occur. • Conduct an archeological survey prior to construction in the area planned for construction. Following the survey, if previously unidentified cultural resources are discovered during construction, project activities in the immediate vicinity of the discovery shall be halted and the landowner/operator shall take all reasonable measures to avoid or minimize harm to the discovered resources until a qualified archeologist can assess the discovery. All artifacts shall be properly documented in place, recorded, preserved, and curated. Such actions by the landowner/operator would ensure that management practices needed to comply with the Conditional Waiver would not result in a substantial adverse change in the significance of an archaeological resource, or directly or indirectly destroy a unique archeological resource.
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3. PROJECT DESCRIPTION

Project Objectives

The project is the adoption of the Conditional Waiver for discharges from vineyard properties in the Napa River and Sonoma Creek watersheds. The objectives of the Conditional Waiver are to regulate discharges from vineyard properties so that they do not cause or contribute to conditions of pollution or nuisance and with water quality objectives and to achieve TMDL numeric targets and load allocations specified in the Basin Plan (Water Board, 2005) to achieve the *Sonoma Creek Sediment TMDL* (Water Board, 2009) and the *Napa River Sediment TMDL* (Water Board, 2010).

Specifically, the Conditional Waiver will:

- Improve and protect water quality through regulation of vineyard discharges that have previously been unregulated
- Protect designated beneficial uses for Napa River and Sonoma Creek, including cold water fish spawning and migration, and habitat for rare and endangered species, specifically anadromous fish species
- Control and reduce runoff, erosion, and sedimentation in surface waters and improve soil conservation
- Stabilize unstable areas such as gullies, landslides, and stream banks
- Promote sustainable agriculture through soil conservation
- Protect and enhance the capacity of riparian areas to filter and trap contaminants and to shade aquatic habitats
- Comply with the NPS Policy

Project Description

The Conditional Waiver implements the Napa River and Sonoma Creek sediment TMDLs that, in part, rely on individual landowners or operators of vineyard properties submitting a report of waste discharge (ROWD), or complying with WDRs, or waiver of WDRs, to meet water quality standards and protect beneficial uses.

The Conditional Waiver applies to a group of existing and new vineyards with specific size, slope and soil type that meet the eligibility requirements as shown on Table 1, above. The Conditional Waiver excludes vineyard properties that contain adequate stream setbacks as defined in the Conditional Waiver. The Conditional Waiver does not apply to new or replanted vineyards on highly erosive soils that are located on slopes of 30 percent or greater (these vineyards would be evaluated under individual permits). These activities pose a higher threat to water quality and will be regulated through WDRs. Vineyard properties that either do not meet the eligibility criteria or cannot or fail to meet the Conditional Waiver water quality requirements will not be covered under the Conditional Waiver.

Landowners/operators of eligible vineyard properties are, among other things, required to:

- Enroll with the Water Board by submitting a Notice of Intent.
- Prepare and a comprehensive, water quality-focused, land management evaluation plan (“Farm Water Quality Plan”) that addresses sources of pollution, and identifies

management practices that when deployed, will achieve and maintain water quality objectives and beneficial uses and allow for progress towards meeting the sediment reduction goals established in the TMDLs. Farm Water Quality Plans will be kept at the vineyard facility or nearby location and be made available for inspection by Water Board staff.

- Delineate and implement management practices to ensure that Conditional Waiver Water Quality Requirements are being met. This includes identifying the process to be used to select and/or develop management practices, and the process to be used to ensure and verify proper implementation, operation, and maintenance of the selected management practices.
- Prepare a time schedule with quantifiable milestones designed to measure progress made towards achieving Conditional Waiver Water Quality Requirements and TMDL sediment reduction goals.
- Conduct management practice implementation effectiveness monitoring to verify that selected management practices are being implemented and maintained, and that the Conditional Waiver Water Quality Requirements are being met. Management practice implementation effectiveness monitoring involves visual inspection of the vineyard properties, management practices, and the closest receiving water, both upstream and downstream of the facility.
- Report to the Water Board annually on the status of the selected management practices, erosional features and processes observed at the vineyard property, and planned implementation actions for the upcoming year.

The Farm Water Quality Plan is a working tool and workbook used to manage one's vineyard property and site operations with respect to potential water quality impacts. Through the farm planning process, individual vineyard landowners/operators will choose the management practices that are necessary to reduce or eliminate potential water quality impacts. Farm Water Quality Plans may be developed and implemented in cooperation with third-party technical assistance groups such as the Resource Conservation Districts (RCDs), Natural Resources Conservation Service (NRCS), U.C. Cooperative Extension, Fish Friendly Farming or other Water Board approved third-party group.

Actions to Comply with Conditional Waiver

Many vineyard properties in the Napa River and Sonoma Creek watersheds are already implementing a variety of erosion control management practices in accordance with local regulations and with assistance provided by established third-party technical assistance groups. Compliance with the Conditional Waiver is expected to result in an increase in the implementation of many commonly used, effective, and conventional agricultural management practices to control and reduce erosion and other forms of discharge from vineyards and their associated road networks. Measures that have proved problematic, such as engineered drainages that concentrate flow and increase storm runoff, would not continue because they would violate the Conditional Waiver's runoff control requirements. The objective of runoff controls is to sink, slow, and spread runoff – not concentrate flow or increase storm flow velocities.

Although it is impossible to know the exact locations or nature of actual management practices that will be implemented as a result of the Conditional Waiver, this environmental analysis

assumes that the types of on-the-ground actions that may occur would be consistent with the commonly used management practices as described in Attachment E of the Conditional Waiver because they are effective.

This environmental analysis considers the potential environmental impacts associated with three categories of possible actions that include:

- 1. Implementation of Management Practices.** The Conditional Waiver will result in implementation of numerous vineyard and road management practices that will, over time, result in reduction in erosion, sedimentation, and storm runoff from vineyard properties. These changes will occur gradually as landowners/operators continue to implement, in increasing numbers and on a watershed-wide basis. Attachment E of the Conditional Waiver lists examples of the most commonly used and recommended management practices for minimizing and controlling the delivery of sediment and storm runoff (including roads and points of discharges to streams), nutrients, and pesticides, to receiving waters. The list was developed through consultation with the vineyard waiver Technical Advisory Committee and Stakeholder Advisory Group assembled to help develop Conditional Waiver requirements and provide input on proposed Conditional Waiver language. Landowners/operators who are subject to the Conditional Waiver are not limited by the practices on this list and site-specific management practices would take into account existing farm operations, farm layout, identified sediment sources and their proximity and connection to water bodies, and the effectiveness of currently deployed management practices
- 2. Establishment of Stream Setbacks.** The Conditional Waiver incentivizes landowners/operators who are located on parcels with less than 5% slope to voluntarily establish stream setback areas along the length of streams located on or adjacent to their properties through the removal of vine rows, roads, and other structures in the stream setback area and the planting of native trees and shrubs. Stream setbacks create more riparian habitat and provide a benefit to water quality and the fishery by allowing overland stormwater to slow in velocity, spread, and infiltrate the soil before entering receiving waters.
- 3. Control of Discharges from New Vineyards.** If approved by a local land use agency, future new vineyards meeting Conditional Waiver eligibility criteria will need to be constructed and operated in compliance with the Conditional Waiver Water Quality Requirements and to demonstrate that the vineyard development would not result in increases in sediment delivery or runoff above existing conditions. It is important to note that the Conditional Waiver does not authorize or permit new vineyards, vineyard expansions, or vineyard replants. Local agencies will continue to process applications for new vineyards, vineyard expansions, and vineyard replanting under their local regulations (general plan goals and policies and ordinances). These local regulations may require implementation of management practices, issuance of permits (e.g. grading permits or use permits) or other approvals determined by the city or county. Local agencies will continue to consider establishment of future new vineyards and the local decision-making body would serve as lead agency under CEQA, determining the need for environmental review of new vineyard land uses.

A summary of the possible implementation actions and the types of likely physical changes to the environment that may be associated with the implementation of the Conditional Waiver are listed in Table 3 at the end of this section, and are discussed in greater detail in the Initial Study Checklist and Responses.

Implementation Phasing

In accordance with California Water Code, conditional waivers of WDRs shall expire 5 years after adoption. After 5 years the Water Board will review the effectiveness of the Conditional Waiver and the vineyard program as a whole, and may revise, renew, terminate, or otherwise alter the vineyard waiver program, as needed.

Management practices will be implemented by owners/operators during the five-year period. Road repair projects could extend beyond the five-year period as progress is made toward reaching the goals of the Sonoma Creek and Napa River Sediment TMDLs, set for 2029 and 2030, respectively. The timing of implementation of management practices will vary depending on the level of farm planning and water quality management at each property at the time that the Conditional Waiver is adopted. As discussed in the Baseline Conditions section below, a significant number of landowners/operators have completed farm plans and have already implemented effective management practices that comply with the Conditional Waiver; for those facilities, no additional management practices will be needed beyond regular upkeep and maintenance. For landowner/operators who have not initiated farm planning at adoption, the Conditional Waiver allows 14 months for completion of farm planning before implementation actions are required. It is likely that, on the whole, management practices will be implemented at intervals throughout the five-year term of the Conditional Waiver, depending on site conditions and existing vineyard management practices.

Community Participation

A CEQA Scoping Meeting was held on April 14, 2010 at the Napa City Library to seek early input from potentially regulated farmers, local agencies, nearby residents, and other interested parties.

The following CEQA scoping issues were identified at the Scoping Meeting and are addressed in this IS/MND:

- Possibility that requirements of the Conditional Waiver would result in conversion of agricultural land to non-agricultural uses
- Potential cultural resource impacts from construction in and around streams

During development of the Conditional Waiver, the Water Board convened a series of Technical Advisory Committee meetings (three meetings held in the Napa River watershed) and Stakeholder Advisory Group meetings (five meetings in the Sonoma Creek watershed) to provide input into Conditional Waiver requirements. Water Board staff also attended numerous meetings, workshops, and field trips sponsored by local stakeholders, including the Napa County Watershed Information Center and Conservancy, Napa County RCD, Sonoma County Farm Bureau, the Napa Valley Vintners, and Fish Friendly Farming. These meetings, workshops and field trips covered a range of topics including vineyard operation and design, road erosion control, storm water flow control and energy dissipation, and sediment control practices. Information gained, including commonly used management practices employed at vineyards to control non-point discharges, was incorporated into the Conditional Waiver and into this environmental analysis.

Table 3. Possible Implementation Actions and Types of Physical Environmental Changes

Pollutant Category	Possible Implementation Actions	Types of Physical Changes
<i>Nutrients</i>	<ul style="list-style-type: none"> • Avoiding fertilizer application methods that could result in over-application and nutrients in runoff • Avoiding mixing, storing, or applying fertilizers in a manner that could result in excess nutrients being delivered to surface or groundwater • Managing onsite irrigation systems to prevent fertilizers from entering surface and groundwater 	<ul style="list-style-type: none"> • Reduced fertilizer use, targeted fertilizer use, alterations to drip irrigation systems, changes in cover crop management, or increased use of organic fertilizers • Construction of small structures such as mixing pads, berms, sheds, and small roofed structures to store, cover, and contain fertilizer • Minor alteration of valves and pipes of the drip irrigation systems to prevent backflows of irrigation water
<i>Pesticides</i>	<ul style="list-style-type: none"> • Implementing Integrated Pest Management (IPM) practices including minimizing the application of pesticides when possible and only using approved products in accordance with applicable regulations and directions • Avoiding mixing, storing or applying pesticides near groundwater wells, surface waters or in ways that could cause or contribute to receiving water toxicity 	<ul style="list-style-type: none"> • Reduced pesticide use and conversion to less toxic pest control methods • Construction of small structures such as pads, sheds, berms, and roofed areas to store, cover, and contain pesticides
<i>Surface Erosion from Vineyards</i>	<ul style="list-style-type: none"> • Planting cover crops, minimizing tillage, and applying mulch, etc. • Repairing and installing drainage facilities such as drop inlets, storm runoff diversion structures, and debris trash racks • Inspecting and maintaining drainage facilities, inlets, storm runoff diversion structures, and storm runoff detention basins • Installing vegetated buffer strips 	<ul style="list-style-type: none"> • Increase in the use of ground cover (cover crop, mulch, etc.) between vineyard rows and potential reduction in tillage • Excavation to access pipes and inlets and installation of pipe, inlets, trash racks, rock or other energy dissipating materials • Inspection would not result in physical changes to the environment but may result in on-site disposal of accumulated debris • Minor grading to alter ground contours and the planting of the buffers either from seed or established small plants
<i>Gullies and Shallow Landslides (unstable areas)</i>	<ul style="list-style-type: none"> • Stabilizing unstable areas by installing drainage improvements, re-contouring, or re-vegetating unstable areas through bio-technical methods, such as installing large woody debris, boulders, and planting appropriate vegetation 	<ul style="list-style-type: none"> • Use of hand-tools and heavy equipment to excavate and repair unstable land masses. Grading to re-direct storm runoff. Installation of soil protection materials such as willow wads, geo-textiles, and or rock • Possibly increases vegetative cover

Pollutant Category	Possible Implementation Actions	Types of Physical Changes
<i>Roads</i>	<ul style="list-style-type: none"> • Grading of roads and road crossings to install water bars, rolling dips, and critical dips • Repairing or replacing undersized or improperly functioning culverts and installing ditch relief culverts • Re-surfacing roads to minimize soil loss and reduce peak flows. Reduction in the number, and minimizing the length, of all-weather roads on the vineyard property • Maintaining vegetated avenues and equipment turn-arounds and locating staging areas for vineyard maintenance, harvest, and pruning away from streams 	<ul style="list-style-type: none"> • Mobilization of trucks and heavy equipment to alter road drainage and topography through cut and fill of road banks, road bed, and fill slope. Placement of native fill or imported fill to construct water bars and rolling dips • Use of hand-tools and heavy equipment to repair or replace culverts (metal or concrete pipe segments), construction of new, or the repair of existing stream crossings at fords or bridges. Installation of stream bank protection materials such as willow wads, geo-textiles, and or rock • Mobilization of trucks and heavy equipment to stabilize road surface through soil amendment, seeding for grass cover or by installing gravel or paved surfaces. Mobilization of trucks and heavy equipment to properly decommission roads • Minor adjustment in the location of routine vineyard operations • Increased vegetative cover on roads
<i>Stormwater Runoff</i>	<ul style="list-style-type: none"> • Installing energy dissipater facilities, rock level spreaders, pipe T-spreaders, and benches • Installing sedimentation/detention basins • Installing alternative vineyard design and/or drainage system at the time of replanting 	<ul style="list-style-type: none"> • Use of on-site materials or importation of rock and T-spreaders to construct features to disperse storm runoff. May involve minor excavation and fill in upland areas • Mobilization of trucks and heavy equipment to remove vegetation and to excavate the area planned for the detention basin. Installation of pipes, valves, and inlet/outlet structures at detention basin • Excavation and fill in upland areas using a range of equipment. May require installation of new pipe and removal of pipes and other drainage features that concentrate runoff. May reduce the footprint of area planted as vineyard
<i>Stream and Riparian</i>	<ul style="list-style-type: none"> • Implementing bank stabilization projects and retaining fallen trees and other natural debris in creek channels • Establishing or increasing stream setback areas by setting back vineyard rows, roads, and soil stock piles from stream 	<ul style="list-style-type: none"> • Use of hand-tools and heavy equipment to repair stabilize unstable areas. May include excavation and fill in upland areas and in some cases along stream courses. Installation of stream bank protection material, such as willow wads, geo-textiles, and rock. Plant native riparian vegetation (groundcover, shrubs and trees) • Removal of some planted grape vines • Use of hand-tools or small equipment to plant the setback area with

Pollutant Category	Possible Implementation Actions	Types of Physical Changes
	<ul style="list-style-type: none"> • Planting native trees and shrubs 	established plants and trees

4. EXISTING CONDITIONS

Environmental Setting

The Conditional Waiver applies to vineyard properties in Napa River and Sonoma Creek watershed that meet established eligibility criteria described in the project description and in Table 1, above.

The Napa River watershed, which drains about 425 square miles, is located in the northern portion of the San Francisco Bay area and drains into San Pablo Bay. The 170 square mile Sonoma Creek watershed is located immediately west of the Napa River watershed and also drains into San Pablo Bay. The Napa River and Sonoma Creek watersheds are designated as impaired for excess sediment, nutrients and pathogens. 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.

Both TMDLs indicate that viticulture is a major source of fine sediment in the two watersheds. Vineyards are a dominate land cover in the valleys and are becoming more extensive on hillsides in some tributary watersheds. Vineyard properties can generate pollutants from surface erosion from vineyards, road runoff, unstable areas (such as gullies and landslides), and from excessive storm runoff. Vineyards may yield fine sediment due to erosion of exposed soil in rows and vineyard avenues, disturbed soil, and small, artificial drainage channels.

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 the 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. Bridges and culverts can also be a source of sediment. 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 have caused Napa River and Sonoma Creek and many of their tributaries to erode their bed and banks. These adjustments result in headcutting, gully and landslide formation, and channel incision (SFEI, 2012).

A description of existing conditions relative to each CEQA topic area is provided in the initial study checklist in the "background" discussion at the beginning of each environmental topic in Section 5, Environmental Impact Analysis, below.

Baseline Conditions

This environmental analysis considers potential environmental impacts of adoption of the Conditional Waiver. Specifically, it considers actions that may be taken to comply with the Conditional Waiver, beyond those actions currently being implemented through volunteer actions or under existing local regulations.

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

- Discharges from all existing vineyards in the Napa River and Sonoma Creek watersheds;

- Existing physical conditions as a result of policies, laws, and regulations of local cities and counties pertaining to vineyards, roads, vegetation removal, and stream setbacks; and
- Existing physical conditions as a result of permits, WDRs, and waivers of WDRs of the Water Board or the State Water Board (e.g. State Water Board Order 2009-0009-DWQ for Storm water Discharges associated with Construction and other Land Use Activities).

Based on the sediment TMDL, an estimated 159,000 metric tonnes of fine sediment is delivered to the Napa River annually (Table 4). The smaller Sonoma Creek watershed produces an estimated 63,000 tons of fine sediment each year (Table 5). The estimated amount of fine sediment that is currently delivered to the Napa River and Sonoma Creek best represent baseline water quality and habitat conditions in the watersheds as it relates to adoption of the Conditional Waiver.

Table 4. Existing Sediment Inputs to Channels in the Napa River Watershed Downstream of Major Dams

Sediment Source	Mean Annual Sediment Delivery(metric tonnes¹/year)
Surface erosion from Vineyards ²	37,000
Roadway-related processes	55,000
Gullies and landslides	30,000
Channel Incision and bank erosion	37,000
TOTALS	159,000

¹A metric tonne equals 1,000 kilograms and about 2,205 pounds

²Includes some grazing land (estimated to be a small fraction, less than 10%, of the total)

Table 5. Existing Sediment Inputs to Channels in the Sonoma Creek Watershed

Sediment Source	Mean Annual Sediment Delivery (tons¹/year)
Surface erosion from Vineyards	7,600
Roadway-related processes	11,200
Landslides	900
Channel Incision and gullies	43,300
TOTALS	63,000

¹A ton equals 2,000 pounds.

Physical conditions in portions of the watersheds have improved since adoption of the TMDLs as a result of early and ongoing farm water quality planning and implementation (Trso, 2011). The Conditional Waiver builds upon these successful efforts. To date, an estimated 25 percent of vineyards have already completed comprehensive farm water quality plans (Table 6) through collaboration with local governments, RCDs/NRCS, the Farm Bureau, and other grower groups in the valleys. The Sonoma County Agricultural Commissioner, Napa County Planning Department, and the RCDs indicate that there are over 131,500 acres of productive vineyards in the Napa River and Sonoma Creek watersheds. Of these, a significant number (25,600 acres in Napa Valley and 2,900 in Sonoma Valley) are certified by Fish Friendly Farming (FFF) and Napa Green (in Napa County only). 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 management practices through other third-party technical assistance programs, such as Napa and Southern Sonoma RCDs. Therefore, the acreages and percentages of vineyards that have completed farm water quality plans and have implemented management actions to reduced non-point source pollutants (Table 6), represent watershed minimums.

Table 6. Acreage of Vineyard Parcels in the Napa River and Sonoma Creek Watersheds and Percentage Certified under Fish Friendly Farming (Napa Green) Program

	Vineyard Parcels (acres)	Area Planted in Vineyard (acres)	Total acres/ % Parcels FFF Certified	Total acres/ % Planted Vineyard FFF Certified
Napa River Watershed	96,300	44,000	25,600 / 27%	13,400 / 30%
Sonoma Creek Watershed	35,200	15,300	2,900 / 8%	1,500 / 10%
TOTALS (both watersheds)	131,500	59,300	28,500 / 22% average	14,900 / 25% 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 Fish Friendly Farming, potential water quality impacts from vineyard property operations are evaluated through a site inspection and the preparation of comprehensive 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 management practices. These management practices are comparable to those actions that will be implemented through landowner/operator compliance with the Conditional Waiver. To the extent that management practices were implemented on vineyard properties prior to development of the Conditional Waiver, these features and facilities are considered to be part of the baseline physical conditions.

In addition, several significant reach-wide river and riparian restoration projects, undertaken as a result of the sediment TMDLs, have led to improvements in channel condition and riparian habitat in the Napa River and Sonoma Creek watersheds. These include the voluntary collaborative restoration of the Napa River of the Rutherford reach (4.5 miles), the Oakville to

Oak Knoll reach (9 miles), and Carriger and Nathanson creeks in Sonoma Valley. Furthermore, a fish passage barrier removal project at the Zinfandel Lane Bridge in Napa has increased habitat for anadromous fish.

Despite these improvements, the Napa River and Sonoma Creek remain impaired by excess fine sediment, nutrients, and pathogens. The Conditional Waiver requires implementation of vineyard operation and road management practices that are intended to correct, over time, sediment and nutrient water quality impairments. Vineyards are not identified as a source of pathogens in the Napa River and Sonoma Creek Pathogen TMDLs (Water Board, 2006 a, 2006b).

5. ENVIRONMENTAL IMPACT ANALYSIS

Initial Study / Mitigated Negative Declaration *pursuant to the California Environmental Quality Act*

A. PROJECT DESCRIPTION

- 1. Project title** **Conditional Waiver of Waste Discharge Requirements for Vineyard Properties in the Napa River and Sonoma Creek Watersheds**
- 2. Lead agency name and address** California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
- 3. Contact person and phone number** Sandi Potter, Engineering Geologist
(510) 622-2426
Smpotter@waterboards.ca.gov
- 4. Project location** Napa River and Sonoma Creek watersheds,
San Francisco Bay Region
- 5. Project sponsor's name and address** California Regional Water Quality Control Board, San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
- 6. General plan designation** Not applicable
- 7. Zoning** Not applicable

8. Summary Description of Project:

The project is the proposed adoption of the Conditional Waiver for vineyards properties in the Napa River and Sonoma Creek watersheds to comply with the implementation plans for the Napa River and Sonoma Creek Sediment TMDLs. The Conditional Waiver specifies requirements necessary to protect and restore beneficial uses in the Napa River and Sonoma Creek watersheds. These actions are consistent with the requirements of the NPS Policy. The Conditional Waiver requires implementation of vineyard operation and road management practices which will result in water quality improvements.

The Conditional Waiver applies to vineyard properties in Napa River and Sonoma Creek watershed that meet the eligibility criteria established in the Conditional Waiver, and described in Table 2, above. It would require the landowners/operators of eligible vineyard properties to:

- Seek coverage under the Conditional Waiver by submitting a Notice of Intent (NOI) to comply with the permit to the Water Board

- Develop a Farm Water Quality Plan
- Implement and maintain management practices and other improvement projects as specified in the Farm Water Quality Plan
- Conduct vineyard property site inspections and compliance monitoring
- Submit an Annual Compliance Form to the Water Board

Other regulatory options to achieve project objectives include imposition of individual or general WDRs or enforcement of Basin Plan prohibitions. Coverage under the Conditional Waiver is:

- Conditional
- May be terminated at any time
- Does not permit illegal activity
- Does not preclude the need for permits that may be required by other state or local government agencies
- Does not preclude the Water Board from taking other actions authorized by the Water Code, including additional technical reports or administering enforcement remedies.

9. Setting and surrounding land uses:

The Conditional Waiver would regulate discharges from certain vineyard properties throughout the Napa River watershed in Napa County, and throughout the Sonoma Creek watershed in Sonoma County.

Napa River Watershed. The Napa River watershed is located in the California Coast Ranges north of San Pablo Bay, covering an area of about 425 square miles (Figure 1). The main stem of the Napa River flows approximately 55 miles in a southeasterly direction through the Napa Valley before discharging to San Pablo Bay. Numerous tributaries enter the main stem from the mountains that rise abruptly on both sides of the valley.

Major land cover types in the Napa River watershed are forest (approximately 35%), grassland/rangeland (23%), agriculture (19%), and developed land, including residential, industrial, or commercial uses (8%). Beneficial Uses, as defined by the Basin Plan include: agricultural supply; cold freshwater habitat; warm freshwater habitat; water contact recreation; non-contact water recreation; fish migration; municipal and domestic supply; preservation of rare and endangered species; fish spawning; warm freshwater habitat; and wildlife habitat. The Napa River watershed provides habitat for several aquatic species of concern, including steelhead trout and Chinook salmon.

Sonoma Creek Watershed. The Sonoma Creek watershed is located in the California Coast Ranges north of San Pablo Bay, covering an area of about 165 square miles (Figure 2). The mainstem of Sonoma Creek flows in a southeasterly direction from headwaters on Sugarloaf Ridge through the Sonoma Valley before discharging to San Pablo Bay. Numerous tributaries enter the main stem from the mountains that rise on both sides of the valley.

Major land cover types in the Sonoma Creek watershed are forest (approximately 30%),

grassland/rangeland (20 %), agriculture (30 %), wetlands and sparsely vegetated-land (5 %), and developed land, including residential, industrial, or commercial uses (15 %). 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 Sonoma Creek watershed provides habitat for several aquatic special status species of concern, including steelhead trout and Chinook salmon.

10. Other public agencies whose approval is required:

No other public agency approvals are required for the Water Board to adopt the proposed Conditional Waiver.

Figure 1
Location of the Napa River Watershed

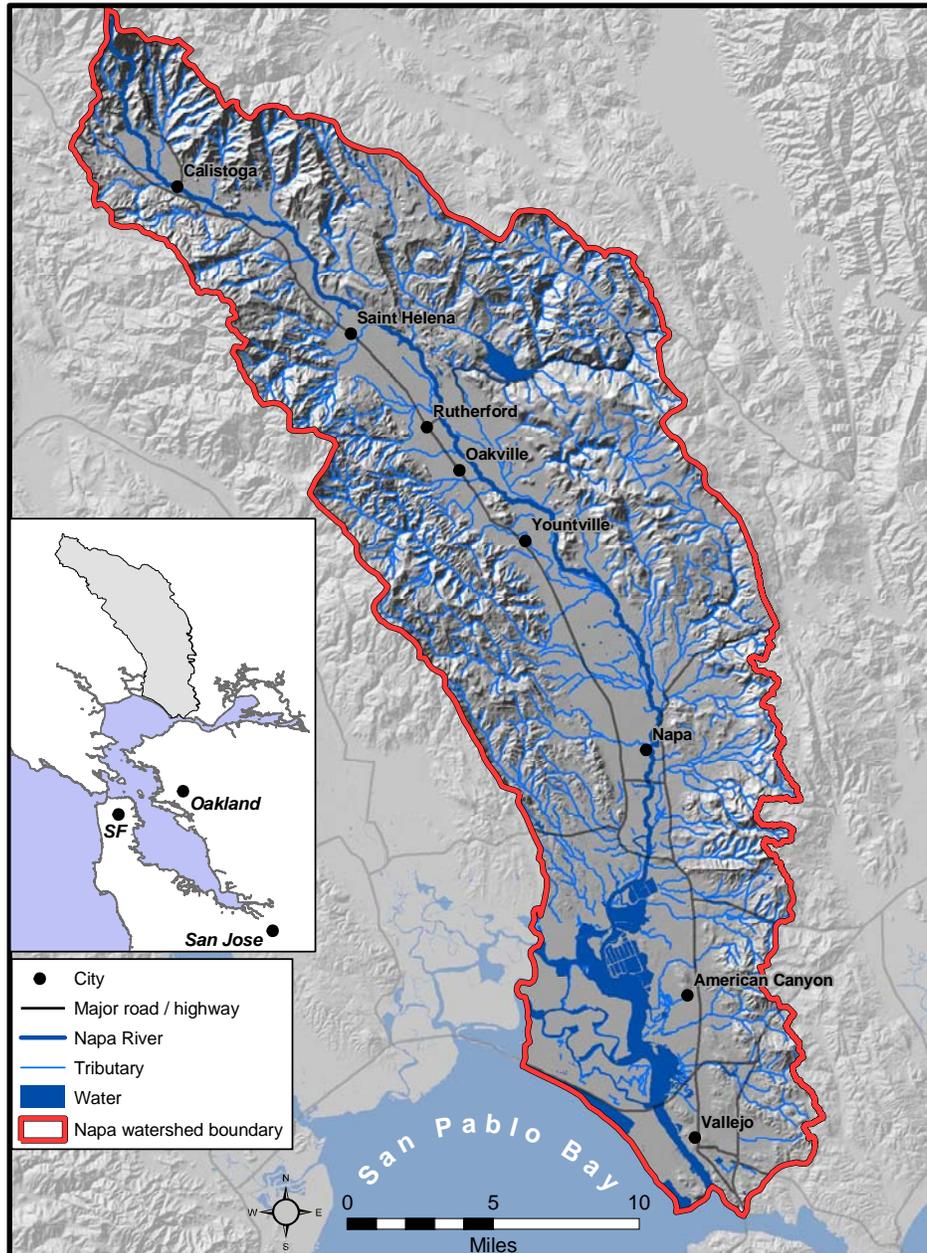
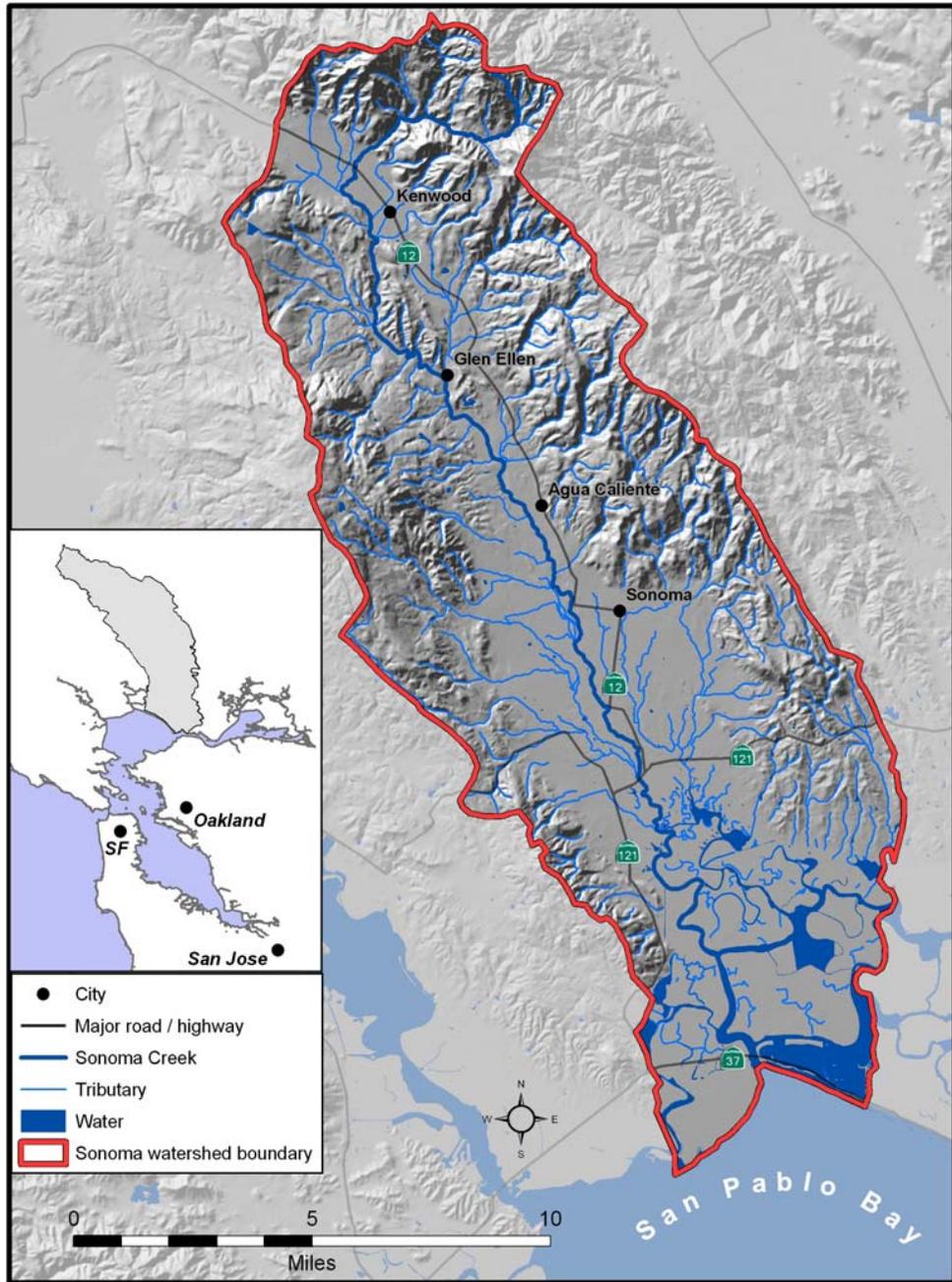


Figure 2
Location of the Sonoma Creek Watershed



B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> 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.
- 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.

Signature
 Bruce H. Wolfe
 Executive Officer

Date

D. EVALUATION OF ENVIRONMENTAL EFFECTS

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 17 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 table 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).

Impact Evaluation

This environmental analysis considers the environmental impacts of physical changes to the environment over existing conditions, the baseline conditions, as described in the Project Description, above. Potential environmental impacts resulting from the adoption of the Conditional Waiver are discussed below and evaluated in the Initial Study checklist and responses. Long term, the Conditional Waiver is likely to result in reductions in nonpoint source pollution, specifically fine sediment, to the Napa River and Sonoma Creek watersheds. Short term incremental physical changes to the environment may include:

- Increases in the implementation of non-point source pollution control management practices
- Expansion of vegetated stream setbacks
- Permitting of discharges from future new vineyards during the 5 year term of the Conditional Waiver

Adoption of the Conditional Waiver would result in the implementation of management practices on existing vineyards, vineyard replants, and new vineyards. Although an estimated 25 percent of planted vineyards are already operating under management practices that reduce pollutants in discharges from vineyards and roads (Table 6), some landowners/operators of vineyards that do not currently meet all of the Conditional Waiver requirements will need to take actions to reduce pollutant sources in order to obtain coverage under the Conditional Waiver. Given that landowners/operators can choose which management measures are best suited given the physical condition of their property, a wide range of a management practices may therefore be needed at each vineyard.

To date, some landowners/operators have completed farm planning and have implemented management practices to a sufficient degree so as to prevent excessive soil loss or excessive storm runoff from their vineyard properties and otherwise comply with the Conditional Waiver. In these cases, where work required by the Conditional Waiver is essentially complete, no environmental impacts would result from the adoption of the Conditional Waiver.

Where owners/operators are implementing some but not all of the required management actions (as identified in their farm plan), remaining actions may involve minor grading or construction and could therefore result in less than significant impacts.

For vineyards with uncontrolled sediment and runoff sources for which no management actions have been undertaken to date, extensive water quality protection controls may be needed. Installation of such controls could involve substantial road rehabilitation or construction of large detention basins, resulting in potentially significant impacts to biological or cultural resources.

Although the Conditional Waiver would result in the Water Board permitting discharges from eligible new vineyards, the Conditional Waiver would not grant approval for new vineyard land uses. It would only approve discharges from a property after local approval is granted for all aspects of new vineyard's construction. Current regulations for the development of new vineyards are more stringent than those for existing older vineyards and therefore, new vineyards are likely to require fewer new management practices to abate pollutant sources. To be covered under the Conditional Waiver, new vineyards would be required to meet all water quality requirements (Table 2, draft Order) and be designed so that there are no increases in

storm runoff rates over existing conditions. Therefore, the incremental water quality impact of additional discharges from these future facilities would be minimal.

Likely physical changes to the environment associated with possible Conditional Waiver implementation actions are listed in Table 3 in the Project Description. Categories of possible actions and their likely environmental impacts are discussed in greater detail in the Initial Study Checklist and Responses and can be summarized as follows:

- 1. Inspection and Routine Maintenance of Existing Facilities.** Inspection and routine maintenance of existing facilities (inlets, diversion structures, ditches, and small sediment basins) could result in collection and disposal of small amounts of sediment and debris. This is an existing practice that is likely to increase in frequency as a consequence of implementation of the Conditional Waiver. Disposal of small amounts of debris from inspection and routine maintenance at vineyard properties does not result in adverse impacts to the environment and is not evaluated further in the IS/MND.
- 2. Changes in the Use of Agricultural Chemicals.** The Conditional Waiver is likely to result in reductions in the use of fertilizers and pesticides, as well as use of these chemicals in a manner that prevents excessive amounts from entering streams. Possible actions to comply with this requirement may include application of nutrients during a limited time period in the fall; reduction in the amount of fertilizer applied, or increases in the amount of compost used.

Vineyard landowners/operators may wish 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 (refer to Attachment E of the Conditional Waiver). Reduction in the use of agricultural chemicals would result in beneficial impacts to water quality and are not further evaluated in the IS/MND.

- 3. Modification of Vineyard Floor Cover and Tillage Practices.** The Conditional Waiver requires implementation of management practices to protect soil from erosion, to promote onsite stormwater runoff infiltration, and to prevent excessive rates of sediment delivery. Many landowners/operators will meet this requirement by limiting tillage and planting cover crops such as grasses, legumes, and native ground covers. These modifications would result in beneficial impacts to water quality and are not further evaluated in the IS/MND.
- 4. Construction of Small Structures.** Actions to comply with the Conditional Waiver could include construction of small structures (such as mixing pads, storage facilities, or berms) to protect and isolate agricultural chemicals from rain and runoff and to contain any spills. Other small structures or facilities (sheds, pipes, energy dissipaters, trash racks, culverts, etc.) may be built to comply with other requirements of the Conditional Waiver. This type of construction could result in

minor, temporary impacts during earth moving; however, these structures will typically be located in upland areas that have already been disturbed by vineyard cultivation. Impacts from dust, noise, and traffic are considered less than significant as discussed in the IS/MND.

- 5. Road Modification.** The Conditional Waiver may result in actions to reduce sediment delivery from roads by reducing hydrological connections (direct connections such as culverts) between roads and streams. Techniques to achieve this end may include resurfacing or regrading roads, and installing rolling dips or water bars. These actions may result in impacts from the operation of heavy equipment, earthmoving, and vegetation removal.

Road repair could also generate minor amounts of dust, noise, and traffic during construction, which could result in less than significant impacts as discussed in the IS/MND. In cases where road repair occurs near streams, the construction could result in potentially significant impacts to biological resources if not properly planned, permitted and executed; mitigation is therefore required. Road work that occurs near streams and that requires deep excavation (greater than six inches) could encounter archeological artifacts and could result in potentially significant impacts to cultural resources. Mitigation for these potential significant impacts is required as discussed below.

Road repair projects would be developed through the farm planning process and be planned and conducted in accordance with Water Quality and Stream Habitat Protection Manual for County Road Maintenance in Northwestern California Watersheds (refer to Attachment E of the Conditional Waiver) approved by National Oceanic and Atmospheric Administration as protective of water quality and anadromous fish habitat.

- 6. Repairs to Gullies and Landslides; Channel Erosion.** Activities to stabilize gullies, shallow landslides and channel banks may require operation of heavy equipment, earthmoving, and vegetation removal. Most of these repairs will occur on land that has already been disturbed by vineyard agricultural land uses. Although the level of impact will depend on the scale of the project, the proximity of the project to water bodies, and specific methods used, in most cases unstable areas are expected to be small in size (i.e., small gullies, rills, eroded banks, and small shallow landslides).

Minor, short-term impacts could result from earthmoving and from importing construction materials, such as large rocks and woody debris (logs). If repair of unstable areas requires construction in stream channels, these actions could result in impacts to wetlands and other sensitive habitats and mitigation measures will be required, as described in the IS/MND. Management actions will be developed and implemented through the farm planning process and will include appropriate gully stabilization and channel and culvert repair methods, as described by the Natural Resource Conservation Service and U.C. Cooperative Extension (refer to Attachment E of the Conditional Waiver).

- 7. Construction of Detention Basins.** Landowners/operators, through the farm

planning process, will have the flexibility to select management practices need to meet Conditional Waiver water quality requirements. One option for controlling storm water runoff from vineyards is through the construction of stormwater detention or retention basins to slow the velocity and rate of peak stormwater flow originating from a vineyard property. Based on extensive experience by the resource conservation districts, Fish Friendly Farming, and other groups, existing vineyards can usually meet the proposed Conditional Waiver water quality requirements for stormwater runoff and surface erosion without building large new detention basins. Detention basins that are likely to be built will typically be small and constructed on already disturbed soils.

Occasionally, however, a new large detention basin may be proposed for construction. According to the Napa County Resource Conservation District (Steiner, 2012), detention basins may exceed 4,000 square feet in area and may be as deep as 6 feet. Construction may involve vegetation removal, grading, and alteration of hydrology that could result in temporary, less-than-significant construction-related dust, noise and traffic impacts. Deep excavation near or adjacent to water may encounter archeological artifacts, resulting in potentially significant impacts and requirement of mitigation measures as described in the IS/MND.

Under the Conditional Waiver, new detention basins may not be located in undisturbed land to be covered under that contain sensitive, or special status species, habitats and sensitive natural communities.

- 8. Establishing Vegetated Buffers and Setbacks.** The creation of stream setbacks is not required by the Conditional Waiver, but is voluntary. The Conditional Waiver provides incentives to owners/operators of vineyards that border or contain streams to establish setbacks that promote water quality improvements. Setbacks allow stormwater to flow overland, slowing, spreading, and infiltrating runoff before entering receiving waters. Creation of stream setbacks provides a water quality and habitat function that is compatible with agricultural uses, while resulting in more riparian habitat and fishery benefits. Although the creation of stream setbacks could result in removal of some grape vines, setbacks will not result in conversion of farmland to non-agricultural use. Therefore, removal of small areas of vine cultivation is a less than significant impact as discussed in the IS/MND.

Overall, adoption of the Conditional Waiver would result in potential minor short-term physical changes to the environment during construction (as described above and summarized in Table 7 below) and would not result in any adverse long-term, permanent impacts. Actions to comply with the Conditional Waiver will 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 a few, low probability cases, deep excavation and construction in stream channels could result in potentially significant impacts that would be mitigated to a less-than-significant levels by measures required in the IS/MND and incorporated into the Conditional Waiver.

Table 7. Summary of Possible Physical Changes to the Environment; Potential Impacts; and Levels of Significance

Possible Physical Changes to the Environment	Possible Environmental Impacts	Level of Significance
<ul style="list-style-type: none"> • Use of integrated pest management practices for pest and weed control • Storing, mixing and applying fertilizers and pesticides and managing irrigation systems to prevent chemicals from entering surface or groundwaters • Planting cover crops, minimizing tillage, and applying mulch to reduce soil loss and excessive runoff • Locating staging areas for vineyard maintenance, harvest, and pruning away from streams • Maintaining and planting native riparian vegetation and grasses to minimize exposed soil 	Beneficial water quality effects	N/A
<ul style="list-style-type: none"> • Inspecting and maintaining drainage facilities, inlets, storm runoff diversion structures, and storm runoff detention basins and on-site disposal of small amounts of material 	No Impacts	No impact
<ul style="list-style-type: none"> • Grading and construction to install small structures such as pads, sheds, and roofed areas to store, cover, and contain pesticides • Excavating to access pipes and inlets and installation of pipe, inlets, trash racks, rock or other energy dissipation structures • Importing of fill, rock material, and pipe to resurface and recontour roads and repair upland sources of erosional • Excavating, filling, and installing drainage features on existing vineyards to modify vineyard layout or row direction during replant • Mobilizing trucks and heavy equipment to remove vegetation from and excavate area designated for detention basin and installation of pipes, inlet, and outlet structure if required 	Minor, temporary construction-related impacts to soils, air quality, water quality, noise, and traffic	Less than significant

Possible Physical Changes to the Environment	Possible Environmental Impacts	Level of Significance
<ul style="list-style-type: none"> • Establishing vegetated stream setbacks and other vegetated buffers • Reducing the number and area of planted grape vines as a result of alternative vineyard layout and/or drainage system at the time of replanting 	Small reduction in the acreage of planted vineyard	Less than significant
<ul style="list-style-type: none"> • Using heavy equipment to excavate in stream channels or wetlands. Installation of materials such as riprap, concrete or other hardscape materials for bank stabilization • Extensive grading or deep excavation to repair roads, replace culverts, or install large sediment or detention basins 	<p>Potential adverse impacts to riparian or wetlands areas that support sensitive habitat or special status species</p> <p>If deep excavation is included, could uncover or disturb Native American artifacts.</p>	Less than significant with mitigation

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
AESTHETICS -- Would the project:				
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 that would be subject to the Conditional Waiver are typically located in rural settings. These lands are visible from roads and neighboring properties and may also be partially visible from 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 structures may include one or more residences, equipment sheds, water well pump structures, frost control facilities, and roads.

Several highways that are eligible for State Scenic Designation are located in Napa and Sonoma counties including all or portions of highways 1, 12, 29, 37, and 121. Of these only Highway 12 is officially designated as a California Scenic Highway.

Discussion of Impacts

a) Have a substantial adverse effect on a scenic vista.

Less than Significant Impact. Implementation of management practices to comply with the Conditional Waiver would typically be small in scale (cover crop, road repair, and small structures such as agricultural chemical storage and mixing areas) and no large building construction would occur. On-the-ground changes that could result from compliance with the Conditional Waiver 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.

Implementation of the Conditional Waiver would require minor grading that could result in

temporary clearing of land followed by revegetation. Grading and road erosion control activities would be short-term and could result in minor impacts to views in some places. 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. Therefore impacts to scenic vistas would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

Less than Significant Impact. While some unique trees or rock outcroppings may be present on some vineyard properties, the types of management practices that would be implemented to comply with the Conditional Waiver will not affect these features. The main purpose of the Conditional Waiver is to preserve and enhance riparian areas, including large trees, promote vegetated buffers, and to prevent erosion, both of soil and rock outcrops.

Outgrowth vineyard management actions to comply with the Conditional Waiver may affect land adjacent to Highway 12, a designated state scenic highway; however, these actions would typically be small in scale. Such compliance actions would not require the construction of facilities that could substantially damage scenic resources within this corridor. Therefore, the proposed project would not result in significant impacts to scenic resources.

c) Substantially degrade the existing visual character or quality of the site and its surroundings.

Less than Significant Impact. As described above, the Conditional Waiver 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 management practices 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 visual character of vineyard sites or the surrounding areas. Therefore, the impacts to scenic resources would be less than significant.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.

No Impact. The project would not include any lighting or structures. Therefore it would have no impact to light and glare.

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
<p>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 Calif. 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 Calif. Air Resources Board.</p> <p>Would the project:</p>				
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

Napa 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 an estimated 59,900 acres of vineyards are actively producing in the Napa River and Sonoma Creek watersheds. The Conditional Waiver will apply, based on the eligibility criteria to an estimated 85 percent of planted vineyards in the Napa River and the Sonoma Creek watersheds.

The Conditional Waiver requires the implementation of vineyard management practices 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 Conditional Waiver is consistent with Napa County's conservation goals and policies (Napa County General Plan) and Sonoma County's Policy and Goals for Reduction of Soil Erosion (Sonoma County General Plan) that encourage and support agriculture seeking to implement programs that increase the sustainability of resources, conserve energy, and protect water and soil (refer to Section X, Land Use and Planning). The Conditional Waiver is also consistent with many conservation policies and regulations of the cities located within the two counties.

Discussion of Impacts

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.

No Impact. Many vineyard properties in the Napa and Sonoma Valleys are mapped as Unique Farmland; however, implementation of vineyard management practices will not result in the conversion of Prime Farmland, Unique Farmland or Farmland of Statewide Importance to non-agricultural use. Individual landowners/operators may choose to implement management practices (including setting back vineyards from riparian areas or constructing on-site drainage facilities such as detention basins) that could remove or relocate portions of some vineyard blocks. Removal of vines from production would not result in conversion to non-agricultural uses since all foreseeable uses on vineyard property under the Conditional Waiver would be compatible with, and ancillary to, existing vineyard agricultural uses. Since the Water Board does not (and cannot) specify the methods of compliance with the Conditional Waiver, it is possible for landowners/operators of vineyards to comply with the Conditional Waiver without changing the total area of vineyard.

The Conditional Waiver would not result in the conversion of existing vineyards for non-agricultural uses such as residential, commercial or industrial land uses.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract.

No Impact. Implementation of vineyard management practices will not affect existing agricultural zoning or any aspect of a Williamson Act contract.

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)?

No Impact. Implementation of vineyard management practices will 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) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Implementation of vineyard management practices will not result in the loss of

forest land or conversion of forest land to non-forest use.

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.

Less than Significant Impact. As indicated in response to Item II a, above, the Conditional Waiver would not result in conversion of farmland to non-agricultural use, because all foreseeable vineyard management practices (drainage facilities, stream buffers, or roads) would be compatible with, and ancillary to, existing agricultural practices and uses. No non-agricultural land uses would result from compliance with the Conditional Waiver. Landowners/operators may choose to remove select grape vines or reposition a road, to establish stream setbacks or to enhance riparian habitat. However, the resultant setbacks would be consistent with existing county policies and regulations, would not result in significant land use changes, and would not create non-agricultural uses that might conflict with existing agriculture.

Efforts to comply with the Conditional Waiver may result in planting of native vegetation around vineyards to create vegetated buffer strips and to 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 reducing algae blooms. 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 Pierce's disease) are not planted. Therefore, planting native riparian vegetation near vineyards would not adversely affect agricultural production.

III. AIR QUALITY

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

Napa and Sonoma counties are located in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). These counties are situated in the northern part of the greater San Francisco Bay area and are bound on the west by Marin County, to the south by San Pablo Bay, and to the east by the Central Valley (Figures 1 and 2). The prevailing wind directions at the Napa County Airport are generally from the south to southwest and average wind speeds are about nine miles per hour. Average high temperatures are usually in the 50s in the winter and the 70s in the summer. The warmest months are August and September. Climate conditions in Sonoma Valley are similar to those in the adjacent Napa Valley.

Discussion of Impacts

a) Conflict with or obstruct implementation of the applicable air quality plan.

No impact. According to the BAAQMD, a project would conflict with or obstruct implementation of the regional air quality plans if it would be inconsistent with the growth assumptions, in terms of population, employment or regional growth in vehicle miles traveled.

The growth assumptions used for the regional air quality plans are based upon the growth assumptions provided in local general plans. The Conditional Waiver would have no impact on any of the growth assumptions made in the preparation of the clean air plans (no housing is proposed), and would not obstruct implementation of any of the proposed control measures contained in these plans and no impact would occur.

Implementation of management practices to comply with the Conditional Waiver would not result in new land uses that would generate traffic or other operational air emissions. Temporary emissions of priority pollutants from construction vehicle exhaust and dust could occur at individual vineyards during construction and installation of management practices, however, these impacts are expected to be limited in duration, would not occur simultaneously, and emission would be relatively small and would not result in obstruction of applicable air quality plans.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Less than significant impact. 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 (particles with diameter 10 micrometers or less, referred to as PM₁₀ and particles with diameter 2.5 micrometers or less, referred to as PM_{2.5}) 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 Napa monitoring station (the only BAAQMD station in the area affected by the Conditional Waiver) is the most representative of air quality conditions in the North Bay where vineyard management practices would be implemented under the Conditional Waiver. Criteria air pollutants routinely measured at the Napa Station include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter (PM₁₀). Smaller particle size, PM_{2.5}, is not monitored at the Napa Station. 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 Napa monitoring station data for the years 2007 through 2011 shows that carbon monoxide, nitrogen dioxide, and ozone concentrations are well below State and federal standards. The concentrations of PM₁₀ varies throughout the year and is typically below the State standard of 50 micrograms per cubic meter (two days of exceedances in 5 years) and are well below the federal standard of 150 micrograms per cubic meter. Other air quality monitoring stations in the North Bay (San Rafael and Santa Rosa) also report concentrations of all criteria pollutants well below the standards.

The Conditional Waiver could result in minor construction-related emission of exhaust and dust

if grading is needed to construct small structures, repair or replacement of existing facilities, or repair roads. Earthmoving produces dust that is mostly PM₁₀. These larger dust particles quickly settle to the ground and when associated with small scale construction pose minor air quality impacts.

The ambient air quality in Napa and Sonoma Valley is well within BAAQMD standards and the small quantities and short duration of construction-related emissions caused by Conditional Waiver compliance actions would not result in exceedances of State or federal air quality standards. Therefore, air quality impacts are less than significant. Furthermore, actions to reduce sediment delivery from roads, such as road surface treatments (gravel or pavement), could result in long term reductions in dust generated from vineyards roads and would be a potential beneficial air quality impact of the Conditional Waiver.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Less than significant impact. In accordance with BAAQMD CEQA Guidelines, for any project that does not individually have significant operational air quality impacts, the determination of significant cumulative impact should be based on an evaluation of the consistency of the project with the local general plan and of the general plan with the regional air quality plan.

The Conditional Waiver will not result in new land uses, housing, or other uses that would generate sustained air emissions. The Conditional Waiver does not propose land uses that are inconsistent with the current land use designation in the Sonoma County and Napa County general plans (refer to Section X, Land Use and Planning, below). Furthermore, Conditional Waiver 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.

d) Expose sensitive receptors to substantial pollutant concentrations.

Less than significant impact. Vineyard properties regulated by the Conditional Waiver would typically be 20 acres in size or greater and are generally located in rural areas, away from schools, hospitals, and other sensitive land uses. Residential uses in these agriculturally zoned districts are very low density, typically containing only a few residences, if any. Minor construction undertaken to implement the requirements of the Conditional Waiver could result in increases in particulates in the air in the immediate area of grading and construction operation, but would not expose sensitive receptors, likely to be located substantial distances from vineyards, to substantial pollutant concentrations. This would be a less than significant impact.

e) Create objectionable odors affecting a substantial number of people.

Less than significant impact. The BAAQMD defines public exposure to offensive odors as a potentially significant impact. In general, the types of land uses that pose potential odor problems include refineries, chemical plants, wastewater treatment plants, landfills, composting

facilities, and transfer stations. No such uses are proposed by the Conditional Waiver.

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. The impact of the project with regard to odors is considered to be less than significant.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
BIOLOGICAL RESOURCES -- Would the project:				
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 Game 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 Game 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 corridors, or impede the use of native wildlife nursery sites?			X	
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 Napa River and Sonoma Creek watersheds support a wide diversity of plant and animal species, including a number of special status species and sensitive natural communities. These communities include mixed evergreen forests, oak woodlands and savanna, native and non-native grasslands, chaparral, and riparian scrub and woodland. The watersheds provide habitat for several threatened aquatic species including steelhead trout (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*) that are protected under the Federal Endangered Species Act.

The Conditional Waiver implements the sediment TMDLs, which were 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 Conditional Waiver 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 management practices could, however, involve work in streams and riparian or wetland areas.

Discussion of Impacts

Overview. The Conditional Waiver's purpose is to benefit biological resources, including fish, wildlife, and rare and endangered species. Many of the management actions that would be implemented to comply with the Conditional Waiver include minor alteration to land, construction of small structures, or repair or maintenance of existing facilities – types of projects that generally have been determined not to have a significant effect on the environment. Nonetheless, it is possible that management actions taken to comply with the Conditional Waiver (e.g. repair and replacement of culverts, road stream crossings, bank erosion control, etc.) that include grading, excavation, placement of fill (soil, riprap or concrete), or vegetation removal in riparian areas could potentially affect sensitive species either directly or through habitat modifications.

While minor construction and earthmoving operations would occur in areas already disturbed by vineyard and road development and would mostly involve repair, re-contouring, or replacement of existing roads and structures, it is possible that these and other site-specific activities to reduce erosion could occur in areas that contain sensitive riparian habitats and species.

The Water Board may not prescribe the means of compliance with the Conditional Waiver; hence landowners/operators may select a variety of management practices to implement over time, in order to achieve the Conditional Waiver's water quality requirements. Therefore, it is not possible to know the nature, extent, or locations of future management practices, or their potential to impact sensitive species or biological communities.

Regulatory Framework. Possible future, site-specific projects that may grow from the Conditional Waiver would be subject to the following existing regulations:

- City and county local general plans, policies, and ordinances pertaining to use

permits, vineyard operations, grading operations, stream setbacks, and heritage tree protection

- Clean Water Act Section 404, which requires U.S. Army Corps of Engineers authorization for dredge or fill in waters of the U.S
- Clean Water Act Section 401, which requires the Water Board to certify that projects requiring federal permits, such as Clean Water Act Section 404 permits, comply with state water quality standards (which include preservation of rare and endangered species) and other appropriate requirements prior to issuance of the federal permit
- Waste Discharge Requirements issued by the Water Board for actions affecting a water of the state that, for example, is not defined as a water of the U.S. (and therefore subject to Clean Water Act section 404 and 401)
- California Fish and Game Code Section 1600, which requires a Lake and Streambed Alteration Agreement from the California Department of Fish and Game to protect fish, wildlife, and habitat conditions
- The Federal Endangered Species Act Section 7, which directs federal agencies, including the, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service to consult, evaluate, and impose conservation practices to prevent impacts to special status species

There are no Habitat Conservation Plans or Natural Community Plans applicable to the Napa River and Sonoma Creek watersheds.

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 Game or U.S. Fish and Wildlife Service?

Less than Significant Impact with Mitigation

Biological Resources Impact IV-1

Management practices to repair and replace culverts, improve road stream crossings, and repair or control bank erosion could require construction in stream channels or riparian areas could affect Chinook salmon and Central California Coast steelhead, both listed as threatened species and protected by the Endangered Species Act, and other sensitive aquatic species.

Discussion

As described above, the purpose of the Conditional Waiver is to protect water quality and restore habitat and populations of threatened Chinook salmon and steelhead. Implementation of erosion and sediment control measures called for in the Conditional Waiver would have long-term beneficial impacts on these and other aquatic species.

Most construction and earthmoving operations would occur in upland areas already disturbed by vineyard and road development and would involve minor grading for the repair, re-contouring or

replacement of existing roads and structures. Vineyard facilities generally consist of rows of planted grape vines, cultivated soil and cover crop between rows, and roads and as such do not provide high quality habitat for special status species. For purposes of this Conditional Waiver, areas of concern for special status species are open space (undisturbed land) and riparian areas on the vineyard property. The vast majority of management practices that would be implemented to comply with the Conditional Waiver would occur within the disturbed area of the vineyard facility.

Occasionally, construction of a new structure, such as a stormwater detention basin, may be contemplated in an upland area not already disturbed by farming, which may contain sensitive species. Considering this, the Water Board has designed the Conditional Waiver to exclude from coverage the construction of new structures or facilities in undisturbed land that may contain sensitive species. Therefore, potential impacts to candidate, sensitive, or special status species and habitat would not occur in currently undisturbed land.

It is possible that construction in or near stream channels or riparian areas could potentially affect Chinook salmon or steelhead at various stages of their life cycle and other sensitive species. Construction in stream channels could involve operation of heavy equipment, installation of dewatering systems, or placement of rip-rap or concrete in the channel.

Implementation of most management actions would involve minimal disturbance to the stream channel. However, if excavation is conducted when spawning gravels contain eggs, the construction could adversely impact egg survival. On rare occasions, if dewatering is required in areas containing rearing juvenile salmonids, these individuals could be isolated in low water. The need for and impacts from dewatering would depend on the time of year construction occurs, channel characteristics, flow conditions, presence of sensitive species, or the nature of the construction. Similarly, stream flow bypass structures designed to dewater a stream segment could affect fish if they become isolated in pools.

Impacts to aquatic benthic macroinvertebrates, which serve as prey for juvenile salmonids, resulting from dewatering would be temporary because construction activities to replace culverts, construct stream crossings, or repair eroded creek banks would be short-lived and would be generally limited to small channel reaches (typically less than 50 feet on either side of the creek (Marcus, 2012), depending on the nature of the repair). In addition, the effect of macroinvertebrate loss on juvenile salmonids is likely to be negligible because food from upstream sources would be available downstream of the dewatered area because stream flow, if present, would be maintained around the stream reach under construction. Thus the loss of aquatic macroinvertebrates as a result of possible dewatering during construction is not expected to adversely affect steelhead or Chinook salmon.

Mitigation Measure IV-1: Landowners/operators conducting road repair at streams, culvert repair, or bank stabilization shall identify all applicable regulations and obtain all required permits or agency consultations prior to initiating construction. Landowners/operators shall obtain permits from the Water Board and all applicable agencies (as discussed in the Regulatory Framework section, above) including U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game for approval. Landowners/operators must construct projects as approved in the applicable permits and implement all avoidance measures, conservation management practices or other mitigation measures stipulated in these permits or approvals.

Road repair at streams, culvert repair, bank stabilization and similar activities in stream and riparian areas require permits from the above agencies. In all cases, the Water Board will be involved (through 401 certifications and, where isolated non-U.S. waters are involved, through waste discharge requirements or waivers thereof) and is required to and will ensure stream and riparian disturbing activities do not adversely affect sensitive species since the Water Board is charged with the protection and preservation of rare and endangered species, a beneficial use. The Water Board would either not approve activities in stream and riparian areas that could cause significant adverse impacts to any special status species either directly or through habitat modification or require avoidance and minimization measures. The Water Board works with U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game to impose conservation practices and other conditions to avoid and minimize impacts to sensitive species. Typical conditions include, but are not limited to:

- Training of all construction personnel by a qualified biologist prior to the start of construction. At a minimum, the training shall include a description of the sensitive species and their habitat, the importance of the species, general conservation measures to be implemented as they relate to proposed construction, and the boundaries and other limitations within which construction may occur.
- Retention of a qualified biologist to serve as an onsite biological monitor during all phases of construction, including the installation of dewatering systems and the removal of water diversion materials. Prior to construction a qualified biologist shall survey the stream reach proposed for construction to ensure that no special status species are within the work area. The biological monitor (biologist) shall be stationed within the construction zone so that work can be observed and adjusted to avoid special status species.
- Prior to construction, installation of temporary fish exclusion screens both upstream and downstream of the project site, if deemed necessary by the biologist.
- Release of water from dewatering systems at rates appropriate to maintain downstream flow during construction. Upon completion of construction activities, the dewatering equipment shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
- Retention of all sediment with a particle sizes larger than 1 inch in diameter, which was removed from the streambed during construction activities; and return of this sediment to the creek upon completion of construction in a manner that maintains creek structure and habitat suitability for salmonids.
- Restriction of in-stream construction to the dry season (generally between June 15 and October 15) after emigrating smolts have left and before adults have returned to the watershed.

Requiring permit compliance and the fact that the above and other controls will be imposed by the Water Board as part of implementing its regulatory obligations during the permit process will reduce the potential construction-related impacts to special status species to a less than significant level.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife.

Less than Significant Impact with Mitigation.

Biological Resources Impact IV-2

Actions to implement the Conditional Waiver may result in potentially significant impacts to sensitive natural communities if construction occurs in the stream channel or riparian area (e.g. repair and replacement of culverts, road stream crossings, bank erosion control etc.).

Discussion

As noted above, the purpose of the Conditional Waiver is to protect water quality and restore riparian habitat. Implementation of erosion and sediment control measures called for in the Conditional Waiver would have long-term beneficial impacts on riparian habitat, as they encourage the expansion of stream setbacks, reduce stream bank erosion and channel incision, and promote robust riparian vegetation that provides shade and supports native fish.

As discussed above, most of the management practices that would be implemented to comply with the Conditional Waiver would occur in upland areas that have already been extensively disturbed by agricultural cultivation and road construction, and therefore would have no impact on sensitive natural communities. Occasionally construction of a new structure, such as a stormwater detention basin, may be contemplated in an upland area not already disturbed by farming, which may contain sensitive biological communities. The Conditional Waiver has therefore been designed to exclude from coverage construction of new structures and facilities in undisturbed land that may contain sensitive natural biological communities.

The environmental analysis for and the Napa River sediment TMDL called for no management practices in areas that contain sensitive natural communities, including but not limited to redwood forest, ponderosa pine alliance, tanbark oak alliance, Oregon white oak woodland, and mixed serpentine chaparral. The Conditional Waiver implements this and prohibits management practices in these areas. The environmental analysis for the Napa TMDL concluded that mapping of these communities may not be complete, and, therefore, conservatively held that there could be potential significant impacts to a sensitive natural community. The Conditional Waiver includes only a subset of the project evaluated in the TMDL environmental analysis. Also, the Conditional Waiver will not have the potentially significant impacts identified in the TMDL because of the addition of the above exclusion from coverage for construction of new structures on undisturbed areas that may contain sensitive natural communities in the Conditional Waiver.

Despite the above, there still remains a potential for impacts to riparian habitat or sensitive natural communities in and near waters. The potential impacts would be confined to temporary impacts of construction in stream channels and riparian areas, discussed above and below. It is possible that construction that involves excavation, placement of fill (soil, riprap or concrete), or vegetation removal in stream channels and riparian areas could potentially affect sensitive riparian or wetland communities. Again, such work would need to be permitted and subject to the Water Boards' requirements such that implementation of Mitigation Measures IV-1, above, and IV-3, below would reduce potential impacts to riparian and wetland natural communities to

a less-than-significant level.

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.

Less than Significant Impact with Mitigation

Biological Resources Impact IV-3

Management practices that involve the repair and replacement of culverts, road stream crossings, bank erosion control, etc., may impact federally protected wetlands on or near riparian areas.

Discussion

Conditional Waiver implementation actions involving the repair and replacement of culverts, road stream crossings, and bank erosion control could take place in riparian areas and potentially disturb wetlands, though the likelihood of permanent disturbance that would result in substantial adverse effects to wetlands is small. Upland wetlands would not be affected because of the Conditional Waiver's exclusion from coverage of new structures in undisturbed land that contains sensitive species or sensitive natural communities (which encompass wetlands). Any adverse impacts on wetlands would not be substantial because Nationwide or individual permit programs administered by the U.S. Army Corps of Engineers require applicants to demonstrate that avoidance, minimization, and mitigation has occurred before the activity can be authorized. Furthermore, for all potential projects where wetland losses would exceed 0.1 acres, applicants are required to provide compensatory mitigation at a ratio that is greater than or equal to 1:1.

Additionally, if implementation actions are proposed that could have the potential to disturb wetlands, these actions also would be subject to the Water Board's review and approval under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. In these cases the Water Board must, consistent with the Basin Plan, require avoidance, minimization, and mitigation of impacts to less-than-significant levels. As specified in the Basin Plan, the Water Board uses the USEPA Section 404(b)(1) Guidelines to determine the circumstances under which the filling of wetlands may be permitted. Avoidance and minimization of impacts must be demonstrated prior to consideration of mitigation. Wetland fill and dredging cannot be authorized if there is a practicable alternative to the discharge which would have less adverse impacts, if it violates water quality standards, and if it jeopardizes endangered or threatened species, among other requirements. The California Wetland Protection Policy also is incorporated into the Basin Plan. The goals of this policy include ensuring "no overall net loss" of wetlands, as well as "long-term net gains in the quantity, quality, and permanence of wetland acreage and values ..." (Governor's Executive Order W-59-93). Wetlands not subject to Sections 404 and 401 of the Clean Water Act because they are not federal wetlands are still subject to regulation and protection under state law.

Thus, to the extent implementation actions take place in areas that affect wetlands, the Water Board is required to and will avoid, minimize and mitigate any wetland (both federal and state) impacts.

Mitigation Measure IV-3: Landowners/operators conducting road repair at streams, culvert repair, bank stabilization, or other activities that involve excavation, fill, or hydrologic interruption (dewatering) in federally or state-protected riparian or wetland areas, including vernal pools and marshes, shall obtain authorization from the U.S. Army Corps of Engineers, in accordance with Section 404 of the Clean Water Act and shall obtain Water Quality Certification from the Water Board in accordance with Section 401 of the Clean Water Act prior to initiating construction. Landowners/operators must construct projects as approved in applicable permits and implement all avoidance measures, conservation management practices or other mitigation measures stipulated in these permits or approvals.

The Water Board will work with U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game to avoid, minimize and mitigate impacts from excavation, fill, and hydrologic interruption in state and federally protected wetlands. During review of a Section 401 Water Quality Certification permit application for specific actions to implement the Conditional Waiver, Water Board will consider including those applicable conditions to minimize or avoid in-stream construction related impacts to wetlands, including those listed in Mitigation Measure IV-1, above and the following additional measures:

- Avoid, minimize and mitigate the amount of fill in wetlands and avoid the use of hard-scape (rock, riprap and concrete) bank stabilization materials in the channel. Instead, use bio-technical methods (willow wads, root wads, large woody debris, etc.) to stabilize stream bed and banks.
- Limit the amount of riparian vegetation removed to the minimum amount necessary to accomplish the erosion control goals of the project.
- Dispose of all litter and construction debris in accordance with state and local regulations. All trash and debris within the construction area must be collected before the end of work each day and removed from the construction area and properly disposed.
- Exclude operation of heavy equipment from any portion of the stream bed where flowing water is present.
- Prohibit fueling, washing, and maintaining vehicles and equipment in the area of the stream channel or wetland. Control fueling to avoid discharge of fuels, lubricants, wash water, etc. to waters of the state.
- Contain spills through the use of designated absorbent materials designed for spill containment and cleanup activities. Maintain these materials at the construction site for deployment in case of an accidental spill.

d) 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 impact. The purpose of the Conditional Waiver is to improve conditions for migratory fish, to encourage removal of migration barriers in tributaries and the main stem of Napa River and Sonoma Creek, and to promote and enhance high-quality riparian vegetation. Vineyard management practices that may be implemented to comply with the Conditional Waiver will be small in scale and will be located on already disturbed or cultivated land and

would not substantially interfere with the movement of any native resident or migratory fish, wildlife species, established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. Therefore, impacts to fish and wildlife would be a less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

No impact. Vineyard management practices that may be implemented to comply with the Conditional Waiver would be consistent with the goals of the sediment TMDLs to retain riparian vegetation and would not conflict with local policies or ordinances, as described in Section X, Land use and Planning, below.

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.

No impact. Compliance actions driven by the Conditional Waiver would not conflict with any Habitat Conservation Plans or natural community plans in Sonoma or Napa counties.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
CULTURAL RESOURCES -- Would the project:				
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

Archeological Resources. Before the European settlement, the Sonoma and Napa valleys were inhabited primarily by Native Americans of the Pomo, Wappo, Lake Miwok, and Patwin tribal groups. Artifacts indicate that the earliest dates of human occupation in Napa Valley date back approximately 5,000 years. This territory consisted of valleys and foothills with plentiful resources and a 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 50- to 150-person tribelet represented the basic social and political unit. 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. Glass Mountain, located on the east side of the valley near Calistoga, was a regionally important obsidian source of high quality for Native Americans and was an important trading commodity (Watershed Information Center and Conservancy of Napa County, 2005).

With the advent of the mission system in the latter half of the 1700s, the numbers of Native Americans in the Napa and Sonoma regions decreased rapidly, as did all Native American populations throughout the San Francisco Bay Area and California.

Historic Resources. After European settlement the area's agricultural industry became cattle, grown to support the needs of the Sonoma Mission. Historic and archaeological remnants of these counties' pasts include sacred sites, burial grounds, cemeteries, ceremonial sites, barns, farmsteads, vineyards 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 Napa counties, and are present in both 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; or
- 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) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than Significant Impact. CEQA (§15064.5 (b)) states that a project has a significant adverse effect on a historical resource if it results in “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.”

Implementation of the Conditional Waiver could involve minor grading and construction at existing vineyard properties or on agriculturally zoned parcels proposed for future vineyard development. Compliance with the Conditional Waiver would not require removal or demolition of structures, bridges, walls, or other potentially historic structures. Construction would occur on agricultural land or on open space and would consist of repair of existing facilities, replacement of existing facilities, construction or conversion of small agricultural structures (such as sheds and mixing pads), and minor alterations to land. Examples include road repairs, construction or repair of drainage facilities, repair or replacement of culverts, and repairs to stream banks. Therefore, it is highly unlikely that compliance actions would result in adverse impacts to structures, such as buildings, bridges, dams, or other water works that would meet the criteria for eligibility under the California Register of Historic Places (CEQA §15064.5).

Conditional Waiver compliance actions could involve construction in stream channels where nineteenth century and/or early twentieth century rock walls or Civilian Conservation Corps erosion control structures (e.g., stream bank or bed stabilization structures, check-dams, detention basins, etc.) are present, however, these projects are not likely to result in substantial adverse alteration of these historic resources. Grading and construction would occur in vineyards and on roads that have been previously disturbed by agricultural activity, not at, or in areas

containing historical resources as defined by section 15064.5 of the CEQA guidelines. Therefore, impacts to historical resources would be less than significant.

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

Less than significant with mitigation.

Cultural Resources Impact V-1

Management practices taken to comply with the Conditional Waiver that involve deep excavation during construction (e.g. extensive road repair, replacement of large culverts or construction of large detention basins) could result in potentially significant impacts to archeological resources, if Native American artifacts are uncovered.

Most of the management actions that would be implemented to comply with the Conditional Waiver include minor alterations to land, repair or maintenance of existing facilities, or replacement or reconstruction of existing structures – types of projects that have been determined to not have a significant effect on the environment and that would not result in impacts to archeological resources.

Nonetheless it is possible that a small fraction of proposed actions to comply with the Conditional Waiver could require larger-scale excavation or deep excavation that could potentially affect archeological resources. While it is not likely since the Conditional Waiver can be met without constructing large basins (see Section D, above) it is nevertheless possible. Management practices such as modifications to road drainages and culverts, and measures to control bank erosion, would generally be small in scale, of short-duration, and limited to shallow excavation. In some cases however, deeper excavation (6-inches or greater) may be necessary to repair roads, stream crossings, and construct detention basins and archeological resources could be encountered.

Some areas in the Napa and Sonoma Valley are known to contain Native American artifacts. Native American artifacts are most commonly discovered near the confluence of creeks, in valleys and at the base of hills, and in Napa Valley, in the vicinity of Glass Mountain. Occasionally, if deep excavation were proposed in these areas (for culvert replacement at stream crossing or on roads located at the base of hills), it is possible (although not likely) that these activities could encounter Native American artifacts. Since actions to implement the Conditional Waiver would occur on land that has already been disturbed by agricultural activity and road construction, only projects involving deep excavation in areas that have remained undisturbed for hundreds of years would be at risk of adverse impacts to archeological resources. In the rare case that a Native American artifact is uncovered, it would likely be an isolated arrowhead or pieces of tools and vessels. It is unlikely that a unique grave site or camping/hunting site would be encountered.

The Water Board may not prescribe the means of compliance with the Conditional Waiver and Landowners/operators may employ a variety of management practices over time to achieve the Conditional Waiver's water quality requirements. It is therefore not possible to know the nature, extent or locations of future management practices, or their potential to encounter archeological resources.

Mitigation Measure V-1. Landowners/operators undertaking large-scale road repair projects that require deep excavation, erosion control management measures that involve excavation in and adjacent to stream channels or in riparian or wetlands areas, or that propose deep excavation for large detention basins that could uncover or disturb Native American artifacts shall:

- Minimize the amount (width and depth) of excavation needed to achieve the desired contour, employ road cover fill techniques and processes (burial) for roads and other sensitive areas near creeks, at the base of hills, or where archeological artifacts are known to occur.
- Conduct an archeological survey prior to construction in the area planned for construction. Following the survey, if previously unidentified cultural resources are discovered during construction, project activities in the immediate vicinity of the discovery shall be halted and the landowner/operator shall take all reasonable measures to avoid or minimize harm to the discovered resources until a qualified archeologist can assess the discovery. All artifacts shall be properly documented in place, recorded, preserved, and curated. Such actions by the landowner/operator would ensure that management practices needed to comply with the Conditional Waiver would not result in a substantial adverse change in the significance of an archaeological resource, or directly or indirectly destroy a unique archeological resource.

c) Directly or indirectly destroy a unique paleontological resource of site or unique geological feature?

Less than significant. Actions to comply with the Conditional Waiver could involve minor grading and construction. Management practices such as modification of road drainage and culverts and measures to control erosion at points of discharge would generally be small in scale, of short duration, and would be generally limited to shallow (6-inches or less) excavation for road repairs, repair of culverts and stream banks. In some cases deeper excavation might be needed to construct storm water detention basins. However, all foreseeable management practices that would be undertaken to comply with the Conditional Waiver would involve excavation and grading on previously disturbed agricultural land or on existing roads and would not destroy any known unique paleontological resource or unique geological feature. This potential impact is therefore considered less than significant.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. Actions to comply with the Conditional Waiver could involve earthmoving and construction. Construction would generally be small in scale, of short duration, and would likely occur in areas already disturbed by recent human activity (within the existing vineyard footprint), not at, or in areas of human remains as defined by section 15064.5 of the CEQA Guidelines (Determining the Significance of Impacts on Historical and Unique Archeological Resources). Therefore, implementation of the Conditional Waiver would not adversely affect human remains, and its impacts would be less than significant.

VI. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
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

Napa River Watershed. The Napa River watershed consists of Mesozoic and Cenozoic volcanic rocks with younger sedimentary rocks in the valley floor area. 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 San Andreas Fault is located about 35 miles (56 km) southwest of the watershed. The watershed is more locally bound by two major faults: the north-west striking Green Valley Fault in the east (about 7 miles [11 km] to the northeast of the watershed boundary), and northwest striking Healdsburg-Rodgers Fault in the west (about 15 miles to the southwest of the watershed boundary).

Sonoma Creek Watershed. The Sonoma Creek watershed, located in the Sonoma Valley, is also part of the Coast Range Physiographic province. The west side of the valley consists of young sedimentary rocks and the east side is predominantly older volcanic rocks of the Mayacama Mountains. Similar to the Napa Valley, the Sonoma Creek watershed lies in an active zone of tectonic activity that is associated with the San Andreas Fault system.

Several notable faults are aligned roughly southeast – northwest influencing the Sonoma Creek watershed. Rogers Creek Fault passes through the headwaters of the creeks that flow into Sonoma Valley on the southwestern side of the watershed, and Tolay Fault runs down Tolay Creek and enters the Marshlands a few miles west of the entrance to Sonoma Creek. Numerous other potentially active faults in Sonoma County as a whole include Burdell Mountain Fault, Chianti Fault, Healdsburg Fault, Mayacama Fault, and the San Andreas Fault. There are also a few others that are “possibly active” including Black Mountain Fault, Dianna Rock Fault, Tombs Creek Fault, and Mt. Jackson Fault.

Discussion of Impacts

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.

ii) Strong seismic shaking?

iii) Seismic-related ground failure?

iv) Landslides?

No impact. The Conditional Waiver 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.

b) Result in substantial soil erosion or the loss of topsoil?

Less than significant. The purpose of the Conditional Waiver is to reduce erosion, not increase it. Installation of drainage facilities, storm runoff diversion structures, and storm runoff detention

basins could result in small scale earth moving construction. Although these devices are routinely used in vineyard operations the Conditional Waiver is likely to result in increases in the installation and maintenance of these types of devices. 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 would be limited in size and scope. These small scale projects may also be subject to the requirements of the Napa or Sonoma County grading ordinances, which would reduce potential impacts from earthmoving.

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?

Less than significant. The Conditional Waiver is intended to reduce erosion, not increase it. Because the Conditional Waiver includes 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, to reduce erosion and sedimentation. Grading would be designed to minimize any potential for landslides, lateral spreading, subsidence, liquefaction, or collapse.

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?

No impact. Landowner/operator compliance with the Conditional Waiver 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.

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?

No impact. Compliance actions associated with the Conditional Waiver 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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
GREENHOUSE GAS EMISSIONS – Would the project:				
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

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).

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. Sonoma County currently has an adopted a *Climate Action Plan* and Napa County is currently developing a *Climate Action Plan* in collaboration with the BAAQMD (Napa County, 2011). These plans address projects that would result in long-term, operation increases in GHG emissions.

Discussion of Impacts

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

Less than significant. The Conditional Waiver would not result in changes in land use nor would it result in an increase in the numbers of vineyards in the Napa River or Sonoma Creek watersheds. Construction of vineyard management practices and road erosion control features could result in vehicle emissions as discussed in Section III, Air Quality, above. These construction-related emissions would be small, temporary in nature, would not be concentrated in one location, and their total contribution to county-wide greenhouse gas emissions would be less than significant.

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

No Impact. The Conditional Waiver would not conflict with any state, BAAQMD, or county plan, policy or regulation adopted for the purpose of reducing the emissions of GHG and no impact would occur.

VIII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
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

Routine operations at vineyard facilities may involve the storage and use of a number of 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.

Discussion of Impacts

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

Less than Significant Impact: Construction associated with implementing vineyard management practices and road erosion control (e.g., promoting infiltration on vineyards, repair of erosion features, road rehabilitation, etc.) will not involve the use or transport of hazardous materials, aside from those fuels and lubricants used for construction equipment. Fuels and lubricant quantities used to implement selected vineyard management practices 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 tractors, and any impacts from their use during construction would be less than significant.

Compliance with the Conditional Waiver would not affect the transportation or potential release of hazardous materials, nor create a significant public safety or environmental hazard beyond any hazards currently in existence. Actions to implement the Conditional Waiver would not interfere with adopted local or state emergency response plans or emergency evacuation plans and would not affect the potential for wild-land fires.

The Conditional Waiver requires 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.

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?

No Impact. Refer to response to Item VIII a), above.

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

No Impact. Refer to response to Item VIII a), above.

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?

No Impact. Refer to response to Item VIII a), above.

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?

e & f) No Impact. There are two airports located in the Napa and Sonoma Valleys. The Sonoma Valley/Schellville Airport is located at 23980 Arnold Drive, about 4 mile south of town of Sonoma. The Napa County Airport is located about 3 miles south of downtown Napa. Although the Napa Valley Airport is adjacent to a business park, both airports are also adjacent to, or nearby to vineyards.

Regardless of vineyard proximity to these airports, the Conditional Waiver would not require implementation actions on vineyards that could result in safety hazards affecting public airports of residents residing within the vicinity of these airports.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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?

g) and h)

No Impact. Refer to response to Item VIII a), above.

IX. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?				X
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 pre-existing 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 Insurance Rate Map or other flood hazard delineation map?				X
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

Napa River. The Napa River watershed encompasses about 425 square miles (Figure 1). The Napa River and its tributaries drain the western portion of Napa County discharging into San Pablo Bay. The northeastern part of the county drains into Lake Berryessa by way of Putah Creek and its tributaries.

Flow volume in the Napa River varies markedly between dry and wet years. The long-term average discharge of the Napa River is approximately 66,000 acre feet (af); however, the minimum recorded annual discharge (about 5,000 af) occurred in 1931, and the maximum recorded annual discharge (in excess of 200,000 af) occurred in 1986 (U.S. Geological Survey 2001).

The Napa Valley is a depositional basin filled to varying depths with unconsolidated and semi-consolidated alluvial material consisting of Mesozoic marine sediments, and metamorphic and igneous rocks, derived from nearby mountains. The largest volumes of groundwater reside the alluvium, with the Mesozoic rocks acting as confining units that generally restrict the flow of groundwater. Groundwater in the alluvium occurs primarily under unconfined aquifer conditions, while groundwater in the tuffaceous volcanic rocks occurs under both confined and unconfined aquifer conditions.

Groundwater in the Napa Valley is not a significant municipal use source of water. Less than one percent of the total volume of groundwater extracted from the Napa Valley is used for municipal use, chiefly by the city of Calistoga. About 70 percent of all groundwater is used for irrigation purposes (mainly for vineyards), and 30% for rural domestic use.

Sonoma Creek. The Sonoma Creek watershed encompasses about 165 square miles (Figure 2). The watershed is commonly divided into three subbasins: Fowler Creek and the smaller creeks west of the City of Sonoma; Nathanson Creek and the creeks east of Schellville; and the mainstem of Sonoma Creek. The headwaters of the western tributaries lie in the Sonoma Mountains and flow into Fowler Creek, which eventually drains to Sonoma Creek near Sonoma. The eastern tributaries drain the hills to the north and east of Sonoma and join Schell Creek just south of Sonoma.

Sonoma Creek flows into San Pablo Bay via a number of circular sloughs and channels that have been highly modified over the last 150 years by dredging, levees, and realignment. Flows from Sonoma Creek also vary markedly between dry and wet years. The long-term average annual discharge of Sonoma Creek is approximately 43,000 af; however, the minimum recorded annual discharge (about 3,000 af) occurred in 1939, and the maximum recorded annual discharge (in excess of 115,000 af) occurred in 1956 (U.S. Geological Survey 2001).

Sonoma County's groundwater plays an extremely important role in our natural environment, communities, industry sectors and agriculture. In 2002, there were approximately 40,000 wells in Sonoma County, with 42 percent of the population supported at least in part by groundwater. Nearly all of the county's population relies on groundwater as either a primary or backup source of water supply.

The amount of groundwater in an area varies by the recharge from rainfall, the surface runoff in streams and drainage channels, and the local underground geology. The alluvial soils, sand and gravel found in valleys generally can hold large amounts of water and thus constitute the largest groundwater aquifers in the county. Although sandstone and some other sedimentary rocks can

absorb some water, many upland areas of the county are composed of harder rock formations where groundwater is less continuous and is found only in cracks and fractures.

Existing and potential beneficial uses identified in the Basin Plan for the Napa River and its tributaries, Sonoma Creek and its tributaries, and San Pablo Bay (the receiving water for Napa River and Sonoma Creek) are listed in Table 5.

Table 8. Beneficial Uses for the Napa River, Sonoma Creek and their tributaries

Beneficial Use	San Pablo Bay	Napa River	Sonoma Creek
Agricultural Supply (AGR)		X	
Cold Freshwater Habitat (COLD)		X	X
Ocean, Commercial, and Sport Fishing (COMM)	X		
Estuarine Habitat (EST)	X		
Industrial Service Supply (IND)	X		
Fish Migration (MIGR)	X	X	X
Municipal and Domestic Supply (MUN)		X	
Navigation (NAV)	X	X	
Preservation of Rare and Endangered Species (RARE)	X	X	X
Water Contact Recreation (REC-1)	X	X	X
Non-contact Recreation (REC-2)	X	X	X
Shellfish Harvesting (SHELL)	X		
Fish Spawning (SPWN)	X	X	X
Warm Freshwater Habitat (WARM)		X	X
Wildlife Habitat (WILD)	X	X	X

Discussion of Impacts

a) Violate any water quality standards or waste discharge requirements?

No Impact. The Conditional Waiver would implement recently adopted TMDLs and the Basin Plan, which articulates applicable water quality standards; therefore, it would not violate standards or waste discharge requirements.

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 pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than significant impact. The purpose of Conditional Waiver is to increase implementation of vineyard management practices and road erosion control measures in order to improve water quality and habitat in the Napa River and Sonoma Creek watersheds. Actions to implement the Conditional Waiver may include measures to promote infiltration of rainfall on vineyards, measures to control erosion due to storm water runoff, projects to repair erosion features, and

projects to rehabilitate poorly functioning roads.

Slowing runoff and promoting infiltration, both goals of the Conditional Waiver, would result in an increase in groundwater recharge. Individual landowners/operators may choose to construct on-site stormwater detention facilities such as unlined ponds, vegetated swales, and vegetated slopes to accomplish this goal. These practices would tend to slow storm runoff, disperse it, and encourage infiltration and thus provide beneficial impacts to local groundwater recharge and supply.

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 that would result in substantial erosion or siltation on- or off-site?

Less than significant impact: The goal and effect of the Conditional Waiver is to reduce erosion, sedimentation and storm runoff from vineyards and to reduce channel bed and bank erosion, on- and off-site. The Conditional Waiver will result in implementation of management practices to ensure that rates of storm runoff (volume, velocity, and duration) do not result in active erosion at points of discharge (such as at culverts, ditches or streams) and that storm runoff does not contribute to an increase in the rate of downstream bed and bank erosion as evidenced by active channel incision, channel head cutting, failing channel banks, or undercutting of tree roots or man-made structures. Possible management practices include construction of detention basins, disconnecting or re-routing subsurface tile drains, and reestablishing vegetative cover.

New vineyards permitted under the Conditional Waiver must be designed so they do not result in excessive concentrated flow or cause an increase in the rate of storm runoff above existing conditions. In order to obtain coverage under the Conditional Waiver, new vineyard landowners/operators must demonstrate, using a predictive hydrologic and/or soil loss model that the project will result in no net increased in soil loss or storm runoff above existing conditions. The Conditional Waiver does not allow for changes in drainage patterns that would result in increased peak flow from vineyard facilities above existing conditions (the baseline described in the Project Description above) or that could result in downstream erosion, and no impact would occur.

Actions undertaken to comply with the Conditional Waiver could result in minor soil erosion during construction. Grading for road repairs, installation of drainage facilities, and repair and stabilization of eroding channel banks could result in minor alteration of existing drainages patterns. The Conditional Waiver Farm Water Quality Plan requires the installation of routine and standard erosion control practices and proper construction site management to control construction-related erosion. These practices include: minimizing areas of bare soil, installation of silt fences, installation of siltation/retention ponds, use of soil stabilizers, mulch, erosion control blankets, avoiding construction during the rainy season.

Therefore, the Conditional Waiver would result in less-than-significant construction-related impacts and overall would result in significant long-term reductions in sediment delivery to the Napa River and Sonoma Creek.

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?

Less than significant impact. As stated in response to IX c), above, although actions to comply with the Conditional Waiver could include alteration to internal vineyard drainage patterns or minor erosion repair in stream channels, these actions would not alter the course of a stream or river. The Conditional Waiver does not allow for changes in drainage patterns that would result in increased peak flow from vineyard facilities above existing conditions (the baseline described in the Project Description above).

Therefore, the Conditional Waiver would not result in increased flooding. Furthermore, the Conditional Waiver encourages vineyard and stream management practices that protect the riparian zone, promote and enhance stream and wetland function, including floodplain storage and stable channel geometry, all of which would reduce the potential for flooding on-site and downstream.

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?

No impact. Actions to implement the Conditional Waiver are, by design, intended to reduce erosion from upland land uses, as needed to reduce fine sediment inputs to channels and to control channel erosion. Therefore, compliance with the Conditional Waiver would not increase the rate or amount of runoff or exceed the capacity of storm water drainage system.

f) Otherwise substantially degrade water quality?

No impact. The goals of the Conditional Waiver, in part, are to improve and protect water quality, protect designated beneficial uses for Napa River and Sonoma Creek, including cold water fish spawning and migration and to protect habitat for rare and endangered species, specifically anadromous fish species. Actions to implement the Conditional Waiver are will reduce fine sediment input to channels and improve water quality. Therefore, the Conditional Waiver would not degrade water quality and no adverse water quality impacts would occur.

g) 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. The Conditional Waiver would not result in the construction of housing.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

No impact. The Conditional Waiver would not result in construction of structures that could impede or redirect flood flows within a 100-year flood hazard zone and no adverse flooding impacts would occur.

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?

No impact. The Conditional Waiver would not result in construction or modification of dams or levees or activities that would expose people to significant damage from dam or levee failure and no adverse impacts would occur.

j) Inundation by seiche, tsunami, or mudflow?

No impact. Compliance with the Conditional Waiver would involve grading and road alteration on agricultural land and would not increase the risk of inundation from a seiche, tsunami or mudflow. Most vineyard properties are not located along the Bay or in areas that would be subject to inundation by seiche, tsunami, or mudflow, and no impact would occur.

X. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
LAND USE AND PLANNING - Would the project:				
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

The Conditional Waiver would apply to vineyard properties in the Napa and Sonoma valleys that meet the established eligibility criteria (Table 1). The zoning ordinances for these counties stipulate requirements for agricultural land uses, including vineyards. The General Plans polices relevant to vineyards and water quality for Napa and Sonoma counties are summarized in Tables 9 and 10, respectively.

Napa County. Napa 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 ground water, soils, fisheries, wildlife, important plant species, and habitats. Napa County’s Conservation Regulations, approved by the Board of Supervisors in 1991 established procedures for review of projects that might have an effect on water quality or other natural resources issues. In 2008, the Napa County Board of Supervisor’s adopted an updated General Plan, which includes several Goals and Policies aimed at protecting and enhancing the natural resources within the County. The County’s Conservation Regulations, discretionary Erosion Control Plan process, and applicable General Plan goals and policies make up the regulatory framework, which collectively regulate erosion and peak flow from new vineyard development on slopes greater than 5 percent.

Napa County Conservation Regulations requires stream setbacks for development adjacent to streams designated in the Napa County General Plan. County designated streams require 35 to 150 foot setbacks depending on slope, which is measured from the top of bank to the outer edge of the area to be graded. Discretionary projects, including new vineyard development on slopes greater than 5 percent, are required to meet performance standards designed to ensure that peak runoff from post-development projects is not greater than pre-development conditions for 2, 10, 50, and 100-year storm events.

Sonoma County. Though Napa County was the first to require erosion control for new vineyards, Sonoma County has its own version and 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 best management practices as established in the Agricultural Commissioner's best management practices 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 50 foot setback. Additional regulations, adopted by the Board of Supervisors in 2012, require that best management practices 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 best management practices 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.

Discussion of Impacts

a) Physically divide an established community?

No impact. The Conditional Waiver is not a land use approval regulation and new vineyards will not be approved by this regulation. The Conditional Waiver requires that where vineyards exist or are proposed, the owners/operators of these existing or proposed vineyards implement management practices to reduce non-point source pollutants and to control erosion and sedimentation. These management practices 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.

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?

No Impact. The Conditional Waiver would not affect any land use plan, policy, or regulation and would therefore not conflict with any zoning ordinances. On the contrary, the general plans for Napa County and Sonoma County include a number of policies relevant to the Water Board that articulate support for TMDL compliance.

These policies are summarized in Tables 9 and 10 below, along with an assessment of the Conditional Waiver’s compliance with general plans. As the tables show, the Conditional Waiver would comply with, and in some cases, augment general plan goals and policies for both Sonoma and Napa counties.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No impact. Actions to comply with the Conditional Waiver would not conflict with any Habitat Conservation Plans or natural community plans in Sonoma or Napa counties.

Table 9. Napa County Water-Related General Plan Policies

POLICY	PROJECT COMPLIANCE
<p>Policy CON-47: The County shall comply with applicable Water Quality Control/Basin Plans as amended through the Total Maximum Daily Load (TMDL) process to improve water quality. In its efforts to comply, the following may be undertaken:</p> <ul style="list-style-type: none"> a) Monitoring water quality in impaired waterbodies identified by the Regional Water Quality Control Boards (RWQCBs). b) Addressing failing septic systems in the vicinity of Murphy, Browns Valley, and Salvador Creeks and throughout the County, should they be found to exist. c) Retrofitting County-maintained roads to reduce sediment caused by runoff. d) Supporting voluntary habitat restoration and bank stabilization efforts, with particular focus on the main stem and main tributaries of the Napa River. e) Ensuring continued effectiveness of the National Pollution Discharge Elimination System (NPDES) program and storm water pollution prevention. f) Ensuring continued effectiveness of the County’s Conservation Regulations related to vineyard projects and other earth-disturbing activities. g) Addressing effects related to past and current mining, grazing, and other activities to the extent feasible. h) Amending the County’s Conservation Regulations or County Code to address excessive sediment delivered to waterways as required by state law, particularly as it relates to private roads and rural unimproved (i.e., dirt or gravel) roads. i) Developing outreach and education programs to inform land owners and managers about improving surface water quality (e.g., rural and private road maintenance, soil and vegetation retention, construction site management, runoff control, etc.) and cooperating with other governmental and non-governmental agencies seeking to establish waiver or certification programs. 	<p>One main purpose of the Conditional Waiver is to implement the Napa River sediment TMDL and to serve as early implementation for the Napa River nutrient TMDL (in development) and therefore the Conditional Waiver would be consistent with this policy.</p>

<p>Policy CON-49: The County shall develop and implement a water quality monitoring program (or programs) to track the effectiveness of temporary and permanent Best Management Practices (BMPs) to control soil erosion and sedimentation within watershed areas and employ corrective actions for identified water quality issues (in violation of Basin Plans and/or associated TMDLs) identified during monitoring.</p>	<p>The Conditional Waiver would support the Water Board’s efforts to implement BMPs to control soil erosion and sedimentation. Furthermore, the Conditional Waiver will require annual reporting to the Water Board on the BMPs deployed and their effectiveness. Actions to implement the requirements of the Conditional Waiver are therefore consistent with this policy.</p>
<p>Policy CON-50: The County will take appropriate steps to protect surface water quality and quantity, including the following:</p> <p>a) Preserve riparian areas through adequate buffering and pursue retention, maintenance, and enhancement of existing native vegetation along all intermittent and perennial streams through existing stream setbacks in the County’s Conservation Regulations</p> <p>b) Encourage flood control reduction projects to give full consideration to scenic, fish, wildlife, and other environmental benefits when computing costs of alternative methods of flood control.</p> <p>c) The County shall require discretionary projects to meet performance standards designed to ensure peak runoff in 2-, 10-, 50-, and 100-year events following development is not greater than predevelopment conditions.</p> <p>d) Maintain minimum lot sizes of not less than 160 acres in Agriculture, Watershed, and Open Space (AWOS) designated areas to reflect desirable densities based on access, slope, productive capabilities for agriculture and forestry, sewage disposal, water supply, wildlife habitat, and other environmental considerations.</p> <p>e) In conformance with National Pollution Discharge Elimination System (NPDES) requirements, prohibit grading and excavation unless it can be demonstrated that such activities will not result in significant soil erosion, silting of lower slopes or waterways, slide damage, flooding problems, or damage to wildlife and fishery habitats.</p> <p> a) Not Applicable</p> <p> b) Not Applicable</p> <p>h) Require replanting and/or restoration of riparian vegetation to the extent feasible as part of any discretionary permit or erosion control plan approved by the County, understanding that replanting or restoration that enhances the potential for Pierce’s Disease or other vectors is considered infeasible.</p>	<p>The Conditional Waiver would support the Water Board’s efforts to reduce erosion from vineyard properties, including their associated road networks, and to incentivize the creation of stream setbacks. These actions are therefore consistent with this policy.</p>

Table 10. Sonoma County Water-related General Plan Policies

POLICY	PROJECT COMPLIANCE
<p>Policy WR-1a: Coordinate with the RWQCB, 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 RWQCB requirements and manage related County programs. Where appropriate, utilize watershed planning approaches to resolve water quality problems.</p>	<p>The Conditional Waiver efforts could result in reduced erosion from vineyard properties, including their associated road networks, and are therefore consistent with this policy.</p>
<p>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 RWQCBs to achieve compliance with adopted TMDLs. Work with the RWQCB to develop and implement measures consistent with the adopted TMDLs.</p>	<p>One main purposes of the Conditional Waiver is to implement the Sonoma Creek sediment TMDLs and therefore the Conditional Waiver would be consistent with this policy.</p>
<p>Policy WR-1g: Minimize deposition and discharge of sediment, debris, waste and other pollutants into surface runoff, drainage systems, surface water bodies, and groundwater.</p>	<p>The Conditional Waiver would reduce sediment discharge to surface water bodies and would be consistent with this policy.</p>
<p>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.</p>	<p>The Conditional Waiver would support the Water Board’s efforts to implement BMPs to control soil erosion and sedimentation from vineyard properties and is therefore consistent with this policy.</p>
<p>Policy WR-1j: Support educational technical assistance programs for agricultural activities and dissemination of best management practices 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%.</p>	<p>The Conditional Waiver encourages property owners to work with technical assistance third-party programs, including but not limited to RCDs, the NRCS, and the UC Cooperative Extension to develop Farm Water Quality Plans and to help implement the requirements of the Conditional Waiver.</p> <p>The Conditional Waiver requires the sediment control and minimization of erosive, concentrated stormwater flows through the implementation of site-specific management practices that might include on-site stormwater retention, stormwater dispersion, etc. These actions are consistent with this policy.</p>

XI. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
MINERAL RESOURCES -- Would the project:				
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

The California Surface Mining and Reclamation Act of 1975 (SMARA) required identification of mineral resources in California. SMARA maps exist for both counties and identify and classify mineral resources as to their relative value for extraction.

The Napa County General Plan Land Use Map contains a ‘Mineral Resource’ overlay zone that identifies mineral resources in the county and outlines resource management policies. Similarly, Sonoma County has adopted the Aggregate Resources Management Plan, a plan for obtaining future supplies of aggregate material. This plan serves as the state-mandated mineral management policy for the county and is intended to accomplish the mandated purposes.

Discussion of Impacts

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?

No impact: The Conditional Waiver may include minor earthmoving during grading for road rehabilitation, culvert repair and replacement and construction of small structures (e.g., mixing pads, detention basins). 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.

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?

No Impact. Refer to response to Item XI a), above.

XII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
NOISE -- Would the project result in:				
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

Vineyard properties meeting the eligibility criteria for Conditional Waiver coverage are typically located in rural areas that are typically large open land areas where the main noise sources are from seasonal agricultural activities and nearby public roads and highways. Small airports are located in each watershed and they may be also be an intermittent noise source (refer to response to Item VIII (e), above).

Furthermore, vineyard properties covered under this Conditional Waiver would be located on large land parcels (greater than 20 acres in size) with a planted area in grapes of 5 acres or greater. These parcels 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 Conditional Waiver 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 could 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 and would not expose sensitive receptors to harmful levels of noise, likely to be located substantial distances from eligible vineyard properties. Management practices to comply with the Conditional Waiver would not result in any on-going new noise sources.

Discussion of Impacts

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?

No Impact. The Conditional Waiver could involve earthmoving and construction. Construction would generally be small in scale, short-term in duration, and could temporarily generate noise. Construction timing, equipment types, and noise-generating operations at construction sites for projects to comply with the Conditional Waiver would have be consistent with Napa and Sonoma Counties' own noise standards, as discussed in response to item XII (b), below.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

No impact. Actions to comply with the Conditional Waiver could involve minor earthmoving and construction. Construction would generally be small in scale and would not involve deep excavation, pile driving or other construction methods that generate excessive groundborne vibration or groundborne noise. The Napa County Health and Safety Code has established limits for exterior noise; these limits vary depending on land use and range from 45 decibels for rural residential areas to 75 decibels for industrial areas. The Sonoma County Noise Element 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 to exceed 50 decibels during the daytime. The nighttime allowable noise ranges from 45 to 65 decibels.

Actions proposed to comply with the Conditional Waiver are not expected to be of the size or scope that would generate excessive groundborne vibration. Furthermore, construction projects undertaken to comply with the Conditional waiver will need to comply with their respective county standards to minimize construction-related noise.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. As described above, actions to comply with the Conditional Waiver would not include new, permanent noise generating sources and would not cause any permanent increases in ambient noise levels. Any noise would be short-term in nature.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact. Actions to comply with the Conditional Waiver could involve minor earthmoving and construction. Although construction activities would generally be small in scale, they could temporarily generate noise. Noise generating activities would, however have to comply with their respective county standards to keep noise levels to less than significant levels. Construction activities would occur on rural land way from schools, hospitals, and other sensitive receptors. Therefore, construction activities that may result from compliance with the Conditional Waiver will not result in substantial noise, and their 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?

No impact. The Conditional Waiver would not cause any permanent increase in ambient noise levels, including aircraft noise. 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.

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?

No impact. The Conditional Waiver would not cause any permanent increase in ambient noise levels, including aircraft noise. Therefore, it would not expose people living in the vicinity of a private airstrip to excessive noise and thus, no impact would occur.

XIII. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
POPULATION AND HOUSING -- Would the project:				
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 Conditional Waiver will take place 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) 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)?

No Impact. Actions to implement the Conditional Waiver will not affect the population of the Sonoma Creek and Napa River Watersheds. It will not induce growth through such means as constructing new housing or businesses, or by extending roads or infrastructure. Implementation of the Conditional Waiver will not displace any existing housing or any people that would need replacement housing.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No impact. Actions to implement the Conditional Waiver will not displace substantial numbers of existing housing nor will compliance actions induce growth and necessitate the construction of new housing or businesses, or require expansion of roads or infrastructure.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No impact. Actions to implement the Conditional Waiver will not displace any existing housing or any people that would need replacement housing.

XIV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
PUBLIC SERVICES-- Would the project:				
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 public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities				X

Background

This section characterizes existing and proposed public services in Napa River and Sonoma Creek watersheds and evaluates changes that may result from actions to comply with the Conditional Waiver. 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.

Napa County. The County of Napa contracts with the California Department of Forestry (CalFIRE) for fire protection services as the Napa County Fire Department. CalFIRE provides administrative support and coordination with six full-time paid stations and nine volunteer fire companies operating under a County Fire Plan. Napa County contracts with the cities of St. Helena and Calistoga, and Schell-Vista Fire Protection District for the provision of fire protection services to specified unincorporated areas adjoining these agencies. The Napa County Fire Department provides fire and emergency service dispatching for the American Canyon Fire Protection District, City of St. Helena, Calistoga and Napa State Hospital Fire Departments. The Town of Yountville contracts with the County to provide fire services to those jurisdictions.

The Napa Sheriff’s Office maintains several substations in various locations throughout Napa County including the City of Napa, Yountville, St. Helena, Lake Berryessa and Angwin. Within the County limits are several incorporated cities and towns. These include American Canyon, Napa, Yountville, St. Helena and Calistoga. The Sheriff’s Office provides police services for American Canyon and Yountville.

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 #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 Sonoma provides police services in their jurisdiction.

Discussion of Impacts

a) 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**
- ii) Police protection**
- iii) Schools**
- iv) Parks**
- v) Other public services**

No Impact. The Conditional Waiver will not result in adverse impacts on fire protection or police services or on schools and parks since this Conditional Waiver is not growth inducing nor does it involve construction of substantial new government facilities or the need for physically-altered government facilities. While the Conditional Waiver includes provisions that may result in construction activity on roads or elimination of some unused roads on vineyard properties, the Conditional Waiver requires work on private roads only and would not affect roads used for public safety or fire protection. Actions to comply with road-specific water quality requirements in the Conditional Waiver, such as road resurfacing and the installation of rolling dips and water bars, would not limit emergency access to private property. Therefore, the Conditional Waiver would not result in changes to roadway networks on private property that would affect service ratios, response times, or other performance objectives for any public services.

XV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
RECREATION -- Would the project:				
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 California Department of Parks and Recreation, Sonoma County Agricultural Preservation and Open Space District, Napa County Regional Park and Open Space District, municipalities, and other private parties own and operation numerous park and recreational facilities in the counties. These facilities provide a variety of outdoor recreational, educational, and sporting opportunities for local residents, Bay Area 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?

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

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. Refer to response to Item XV a), above.

XVI. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
TRANSPORTATION/TRAFFIC -- Would the project				
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
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X

Background

Highway 29 is the main highway through the Napa River Watershed. The Silverado Trail, which runs along the east side of the valley, is used mostly by locals to avoid tourist traffic. Two-lane highways lead into Napa County from both the east (Highway 12) and west (Highway 12/121). Highway 12 is the main highway through the Sonoma Creek Watershed. In addition, Sonoma County's highway network includes Highways 116 and 121. Highways 12/121 and 37

connect Sonoma and Napa Counties. Outside of urban areas, most roadways are two-lane rural roads.

Conditional Waiver water quality requirements could result in modifications to vineyard property roadway networks that are owned and under the control of private landowners/operators and would not affect public roads or maintenance easements.

Discussion of Impacts

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?

No Impact. The Conditional Waiver may result in an increase in truck traffic to move some operations away from water wells and streams so as to prevent pollutants from entering water ways. Where management practices require construction to erect small structures, modify roadway networks, or install detention ponds, minor additional vehicular traffic could increase. 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, and/or stream crossings. Minor construction-related truck traffic is likely to be limited in number and duration, be located 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 existing street systems.

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?

No Impact. See response to Item XVI a), above. Levels of service would be unchanged.

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?

No impact. The Conditional Waiver would not result in increased air travel or otherwise affect air travel.

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

No impact. Although private vineyard roads may require erosion control treatment, compliance actions undertaken under the Conditional Waiver do not require the construction of new roads, generate new hazards, or result in roads that are incompatible with vineyard operational uses. No road design or construction hazards would occur.

e) Result in inadequate emergency access?

No Impact. The Conditional Waiver would result in grading and erosion control actions on

unpaved roads that are not typically used for emergency access. Therefore, the Conditional Waiver would not result in inadequate emergency access and no impacts would occur. Refer also to response to item XIV (a), Public Services, above.

f) Result in inadequate parking capacity?

No Impact. Because the Conditional Waiver would not increase population or provide employment, it would not affect parking demand or supply, and no impacts would occur.

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No impact. Because the Conditional Waiver would not generate ongoing motor vehicle trips, it would not conflict with adopted policies, plans, or programs supporting alternative transportation.

XVII. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
UTILITIES AND SERVICE SYSTEMS - Would the project:				
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?				X

Background

Napa 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 Napa County, water supply is provided by a series of municipal dams and groundwater wells. In Sonoma County, the Sonoma County Water Agency provides surface and groundwater derived mainly from the Russian River watershed.

Discussion of Impacts

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The Conditional Waiver is requirement of the Regional Water Quality Control Board and would implement the Basin Plan, which is the basis for wastewater treatment requirements to improve water quality and the environment in the Bay Area; therefore, the Conditional Waiver would be consistent with such requirements.

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?

No Impact. The Conditional Waiver does not include changes to wastewater treatment facilities and no impacts would occur.

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?

No Impact. The Conditional Waiver 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 Conditional Waiver would reduce erosion, sedimentation, peak runoff, and flooding, all beneficial environmental effects.

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

No Impact. Because the Conditional Waiver would not increase population or provide employment, it would not require an ongoing water supply. It would also not require ongoing wastewater treatment services and no impacts would occur.

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?

No Impact. See response to Item XVII d), above.

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

No Impact. The Conditional Waiver would not substantially affect municipal solid waste generation or landfill capacities and no impacts would occur.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. See response to Item XVII d), above.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
MANDATORY FINDINGS OF SIGNIFICANCE --				
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 Conditional Waiver, a permit to allow discharge from existing and future vineyards that meet the eligibility criteria and adhere to all conditions in the Conditional Waiver, has been developed to reinforce and augment existing local land use and conservation regulations, as described in Land Use and Planning, above. Other existing water quality and resource conservation regulations that may, together with the Conditional Waiver, effect the environment, are listed below.

- Napa County Conservation Regulations
- Napa County General Plan Stream Setback Policies
- Sonoma County Vineyard Erosion and Sediment Control Ordinance (VESCO)
- Sonoma County Stream Setback Ordinance

- Sonoma County Tree Removal Ordinance
- Sonoma County General Plan Water Resources Element Policies
- General Plan policies and other vineyard regulation in the cities of Calistoga, Napa, Sonoma, St. Helena, and Yountville.

The adoption of the Conditional Waiver will not result in the relaxation of water quality standards and would, in all cases, reduce non-point source pollutant discharge from existing vineyards and roads (existing conditions).

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 impact. The purpose of the Conditional Waiver, as stated in the Project Objectives above, is protection of habitat for endangered steelhead trout, Chinook Salmon and other special status species and protection of sensitive riparian habitat that support these species to prevent their elimination. The Conditional Waiver will result in a multitude of environmental benefits, including reducing sediment inputs to creeks and streams, improving water quality, reducing erosive forces from storm runoff, improving channel stability, improving fish habitat, and enhancing riparian habitat. These goals would be achieved through implementation of vineyard and road management practices, as specified in Conditional Waiver and whose effectiveness has been demonstrated in the sediment TMDLs and by early implementation actions. In order to prevent possible impacts to sensitive natural communities the Conditional Waiver, consistent with the Basin Plan, prohibits management actions in areas including but not limited to redwood forest, ponderosa pine alliance, tanbark oak alliance, Oregon white oak woodland, and mixed serpentine chaparral (as discussed above in Biological Resources Section VI, above). Therefore, no impact to these sensitive natural communities would occur.

The Conditional Waiver is generally associated with minor, localized, short-term construction-related impacts. These impacts are either less-than-significant or could be mitigated to a less-than-significant through implementation of mitigation measures as discussed in the Initial Study and would not result in cumulative impacts that would degrade the quality of the environment, reduce fish or wildlife habitat, cause fish or wildlife populations 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.

Potential impacts to isolated archeological resources that could be encountered during deep excavation as part of large detention basin construction or during major road repair would be mitigated as described in Section V, Cultural Resources above. The Conditional Waiver would not result in elimination of important examples of California history or prehistory, because none of the construction-related impacts, with required mitigation, are severe in magnitude or spatial extent, nor do they have a high potential of occurrence.

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)?

Less than significant impact. The Conditional Waiver could result in alteration of existing drainage systems on vineyards and roads that could affect storm runoff. As discussed in Section IX, Hydrology and Water, above, the Conditional Waiver requires that management practices be implemented to ensure that storm runoff (volume, velocity, and duration) do not result in active erosion at points of discharge (such as at culverts, ditches or streams) and that storm runoff does not contribute to an increase in the rate of downstream bed and bank erosion as evidenced by active channel incision, channel head cutting, failing channel banks, or undercutting of tree roots or man-made structures. The Conditional Waiver also requires that new vineyards be designed so they do not result in excessive concentrated flow or cause an increase in the rate of storm runoff above existing conditions. In order to obtain coverage under the Conditional Waiver, new vineyard landowners/operators must demonstrate, using a predictive hydrologic and/or soil loss model that the project will result in no net increases in soil loss or storm runoff above existing conditions.

None of the possible actions that may be undertaken to comply with the Conditional Waiver could result in an increase in long-term sediment production or delivery to receiving waters or to an increase in peak flow above existing conditions. Overall, sediment delivery and storm runoff from existing vineyard properties will be reduced as individual landowners/operators make improvements to their properties to comply with the Conditional Waiver. Because the Conditional Waiver would result in a decreases in erosion, sedimentation, or storm runoff from vineyard properties over existing baseline conditions (described above), the Conditional Waiver does not, and cannot, contribute to cumulative impacts when considered with related past, current or future project impacts.

As discussed in the Aesthetics, Air Quality, Agriculture, Geology and Soils, Greenhouse Gas emissions, Hazardous Materials, Hydrology and Water Quality, and Noise analysis, above, the Conditional Waiver could result in minor, temporary construction-related impacts that would be less than significant. These impacts would be limited in extent, consisting of repair of existing facilities, replacement and reconstruction of existing facilities, construction of small structures, and minor alteration of land. Short-term construction-related impacts would not compound or increase when considered with impacts of other related projects that could be under taken in the next 5 years (the term of the Conditional Waiver) in the Napa River and Sonoma Creek watersheds because impacts of the Conditional Wavier are temporary, localized, and ephemeral, and would, therefore, not be cumulatively significant.

In some cases implementation actions undertaken to comply with the Conditional Waiver could include construction in stream channels, riparian areas, and deep excavation that could result in potentially significant impacts to cultural and biological resources. These impacts will be reduced in severity by implementation of mitigation measures (Mitigation Measure IV-1, IV-3 and V-1). Potential biological and cultural resource impacts would be avoided, minimized or mitigated as described in Section IV and V above and would not result in long-term significant impacts. Potential impacts to biological and cultural resources would not compound or increase when considered with impacts of other related projects that could be undertaken in the Napa River and Sonoma Creek watersheds because these impacts are temporary, localized, and ephemeral and would, therefore, not be cumulatively significant. Moreover, with respect impacts to endangered

steelhead and trout, the Conditional Waiver when considered with other river restoration projects would improve over time and be environmentally beneficial.

Furthermore, other future related projects, road improvements, and vineyard management projects in the Napa and Sonoma Valleys would include measures to reduce and avoid similar construction-related dust, noise, biological and cultural resource impacts as required by existing regulations such as county grading permits, BAAQMD guidelines, California Department of Fish and Game streambed alteration agreements, and federal regulations pertaining to dredge and fill in federal waters and protection of endangered species to avoid or minimize project-specific and cumulative impacts.

The Conditional Waiver would not result in any long-term permanent adverse impacts. Specifically, the Conditional Waiver would not result in long-term increases in storm runoff or sediment delivery that could combine with impacts of other related projects, past present or future at a watershed or sub-watershed scale. On the contrary, the Conditional Waiver requires a reduction in sediment and runoff from existing vineyards over current conditions and requires that new vineyards constructed during the term of the waiver not result in increased erosion or runoff over existing conditions. The Conditional Waiver will result in long-term reductions in discharge of all pollutants--specifically nutrients, pesticides, sediment, and storm runoff--and cumulative impacts would be beneficial. Therefore, the Conditional Waiver would not result in cumulatively significant adverse impacts.

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

Less than significant impact. The Conditional Waiver would not cause any substantial adverse effects to human beings, either directly or indirectly. The Conditional Waiver is intended to benefit human beings through implementation of actions designed to improve water quality, enhance habitat and fish populations, and contribute to a reduction in property damage to sites located near stream channels in the Napa River and Sonoma Creek watersheds.

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