

**CERTIFICATION OF THE FAIRFAX CONVERSION
PROJECT FINAL EIR;**

**ADOPTION OF CALIFORNIA ENVIRONMENTAL
QUALITY ACT FINDINGS, MITIGATION
MEASURES, AND MITIGATION MONITORING
PROGRAM; AND**

**APPROVAL OF THE
FAIRFAX CONVERSION PROJECT**

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I. CERTIFICATION OF THE FINAL EIR

The California Department of Forestry & Fire Protection (“Agency” or “CAL FIRE”), as lead agency under the California Environmental Quality Act (“CEQA”), has completed the Final Environmental Impact Report (“Final EIR” or “EIR”) for the Fairfax Conversion Project (“Project”). The Project is a proposed vineyard located in the County of Sonoma. These findings address EIR certification and approval of the Project as proposed.

The Final EIR (State Clearinghouse No. 2004082094) constitutes a project-level analysis of the proposed action. A Draft EIR was circulated to the public for a 60-day public review period from May 29, 2009 to July 28, 2009. In March 2011, CAL FIRE circulated for public comment a “Partially Recirculated Draft Environmental Impact Report (RDraft EIR)” to update two Draft EIR sections: Chapter 3.5, *Cultural Resources*; and Impact Discussion 4-3, *Cumulative Contribution to Global Climate Change*, in the Cumulative Impacts chapter of the Draft EIR.

The Final EIR is comprised of the Draft EIR, the RDraft EIR; the public and agency comments submitted on those documents; written responses to the environmental issues raised in those comments; revisions to the Draft EIR and RDraft EIR reflecting changes made in response to comments and other information; and other minor changes to the text of the Draft EIR and RDraft EIR. The Final EIR is hereby incorporated in this document by reference. CAL FIRE certifies that it has revised and considered the information contained in the Final EIR prior to making the following certifications and the findings.

Pursuant to CEQA Guidelines section 15090 (Title 14 of the California Code of Regulations, section 15090), CAL FIRE certifies that the Final EIR has been completed in compliance with CEQA and the state CEQA Guidelines. CAL FIRE further certifies that the Final EIR reflects its independent judgment and analysis.

II. FINDINGS

The Final EIR prepared for the Project addresses the environmental effects associated with development of a proposed vineyard located in the County of Sonoma. Having prepared, reviewed, and considered the Final EIR and other information in the record of proceedings; CAL FIRE hereby adopts the following findings in compliance with CEQA and the CEQA Guidelines. As such, these findings are based upon substantial evidence in the entire record before the Agency. The references set forth in these findings to certain pages or sections of the Draft EIR, the RDraft EIR, or the comments, responses, or other portions of the Final EIR are for ease of reference, and are not intended to provide an exhaustive list of the evidence relied upon for these findings.

These findings do not attempt to describe the full analysis of each environmental impact contained in the Final EIR. In making these findings, CAL FIRE ratifies, adopts

and incorporates in these findings the determinations and conclusions of the Final EIR relating to environmental impacts and mitigation measures, except to the extent any such determinations and conclusions are specifically and expressly modified by these findings.

A. PROJECT OVERVIEW

Codorniu Napa, Inc.'s Artesa Vineyards (the applicant) plans to develop the Fairfax Conversion Project site. The Project would develop a vineyard on a site located in the County of Sonoma, about 0.5 to 0.75 miles southeast of the town of Annapolis and five miles east of the Pacific Ocean. The Project is located on a broad, flat ridge (Beatty Ridge) between Grasshopper Creek and the Wheatfield Fork of the Gualala River. The site currently consists of young-growth timber and agricultural land associated with past orchard and sheep grazing activities. The site is located on three parcels, identified by County of Sonoma Assessor's Parcel Numbers ("APNs") 123-040-022, -024, and -027, occupying a total area of approximately 324 acres. The Sonoma County General Plan land use designation and zoning classification of the Project site is "Resources and Rural Development," or "RRD." The RRD designation identifies agriculture and row crops, including vineyards, as anticipated uses of the Project site. As explained in the Final EIR and as set forth in detail herein, the proposed Project is consistent with the types of uses currently allowed on the site pursuant to the County's General Plan. (See, e.g., Draft EIR, p. 3.2-23.)

Approximately 151 acres (about 46.6%) of the overall 324-acre site will be preserved and protected for the benefit of species, habitat, and other resources. The applicant plans to develop the Project site as follows (all acreages are approximate): a 173-acre work area with 116-acre net vineyard, 18 acres of perimeter avenues, a nine-acre reservoir and sump, two acres of driveways and roads, a 2/3-acre corporation yard, and 27 acres of non-vineyard uses. Approximately 154 acres of the 173-acre total would be converted from young-growth timber (redwood and Douglas fir) to vineyard, under the conditions of a Timberland Conversion Permit ("TCP") issued by CAL FIRE. The Project site was formerly harvested, likely between 1940 and 1960, and no "old growth" occurs on the Project site. Two large redwood trees exist on the site, and they will be preserved in protected corridors at the request of the Department of Fish and Game. The timber harvesting activities on the site would adhere to the California Forest Practice Rules and are described in detail in a Timber Harvest Plan ("THP") prepared for the applicant by a state-licensed Registered Professional Forester ("RPF"). The actual logging will be performed by a state-certified Licensed Timber Operator ("LTO").

1. Project Objectives

The objectives of the Project are:

To take the fullest advantage of the site's unique topography, soils, and microclimate to produce premium quality grapes for Artesa's "Sonoma Coast Estate Chardonnay and Pinot Noir" wine program. Artesa expects to utilize the entire production from this project.

To control quality of grapes through the production process.

To establish and maintain an aesthetically pleasing vineyard with minimal impact on watersheds and wildlife.

To provide greater opportunities for vineyard employment and economic development in the Sonoma region.

To repair the existing site conditions which are resulting in erosion and contributing to the sedimentation of receiving waters.

To develop a project which furthers Sonoma County's conservation regulations.

2. Approval Actions

Development of the proposed Project requires a variety of discretionary and ministerial entitlements and permits. Discretionary permits are those reviewed and approved based on the discretion of public officials in compliance with federal, state, and county regulations. Ministerial permits and approvals are those that are automatically conferred upon demonstrating compliance with permit requirements and the payment of any related fees. Approval actions for the Project include:

California Department of Forestry and Fire Protection

- Discretionary – Timber Harvest Plan
- Discretionary – Timberland Conversion Permit
- Ministerial – Conservation Easement Management Plan
- Ministerial – Habitat Management Plan
- Ministerial – Post-Construction Monitoring Plan
- Ministerial – Channel Erosion/Sedimentation Basin Monitoring Plan
- Ministerial – Agricultural Chemical Use and Storage Contingency Plan

United States Army Corps of Engineers

- Discretionary – Section 404 Permit

United States Fish and Wildlife Service

- Ministerial – Northern Spotted Owl Letter of Technical Assistance

California Department of Fish and Game

- Discretionary – Streambed Alteration Agreement

North Sonoma County Air Pollution Control District

- Ministerial – Burn Permit

North Coast Regional Water Quality Control Board

- Ministerial – Section 401 Water Quality Certification
- Ministerial – Stormwater Pollution Prevention Plan

Sonoma County

- Ministerial – Erosion Control Plan
- Ministerial – Grading Permit
- Ministerial – Erosion Prevention and Dust Control Plan
- Ministerial – Conservation Easement Management Plan
- Ministerial – Paleontological/Archaeological Resource Plan
- Ministerial – Post-Construction Monitoring Plan
- Ministerial – Channel Erosion/Sedimentation Basin Monitoring Plan
- Ministerial – Agricultural Chemical Use and Storage Contingency Plan
- Ministerial – Construction Traffic Management Plan

B. ENVIRONMENTAL REVIEW PROCESS

1. Background

An Initial Study was prepared to focus the scope of the Fairfax Conversion Project EIR. Notice of Preparation (“NOP”) for the Draft EIR (SCH# 2004082094) was released August 20, 2004 for a 30-day review. In addition, a public scoping meeting was held on September 2, 2004. Comments provided by the public and public agencies in response to the NOP were received by CAL FIRE and were provided in Appendix B to the Draft EIR.

The Draft EIR was circulated to the public for a 60-day public review period from May 29, 2009 to July 28, 2009. A total of 36 comment letters were received during the open public comment period on the Draft EIR and Timber Harvest Plan (“THP”) from residents, state and local agencies, and organizations. In addition, comments were provided specifically on the THP by the state agencies comprising the THP review team during both the public comment period and the pre-harvest inspection.

In March 2011, CAL FIRE circulated for public comment a “Partially Recirculated Draft Environmental Impact Report (RDraft EIR)” to update two Draft EIR sections: Chapter 3.5, *Cultural Resources*; and Impact Discussion 4-3, *Cumulative*

Contribution to Global Climate Change, in the Cumulative Impacts chapter of the Draft EIR. In response to comments, CAL FIRE added further discussion and analysis to these two Draft EIR sections, and provided information regarding modifications to the project description that generally resulted in a reduction in the plantable vineyard area. Those changes were described comparatively in Chapter 1, *Introduction*, of the RDraft EIR. While no new impacts were identified as a result of these clarifications and amplifications of the information provided in the Draft EIR, CAL FIRE decided to recirculate them separately from the original Draft EIR for a full 45-day period.

2. Absence of Significant New Information

CEQA requires a lead agency to recirculate an EIR for further review and comment when significant new information is added to the EIR after public notice is given of the availability of the draft EIR but before certification of the final EIR. (CEQA Guidelines, § 15088.5.) New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project proponent declines to implement. CEQA Guidelines section 15088.5 provides examples of significant new information under this standard. Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in the environmental document.

CAL FIRE recognizes that the Final EIR incorporates information obtained by the Agency since the Draft EIR and RDraft EIR were completed, and contains additions, clarifications, modifications, and other changes. With respect to this information, CAL FIRE finds as follows:

Changes to Mitigation Measures

Several minor changes and edits have been made to the mitigation measures identified in the Draft EIR and RDraft EIR, as described in Chapters 2 and 3 of the Final EIR and Erratum, and as reflected in Chapter 4 of the Final EIR (Mitigation Monitoring Plan). CAL FIRE finds that the changes and/or corrections merely clarify and amplify the content of the Draft EIR and RDraft EIR, and do not meet the standards set forth in CEQA Guidelines section 15088.5 for “significant new information.” As such, they do not require recirculation of the EIR.

Other Changes. Various minor changes and edits have been made to the text, tables, and figures of the Draft EIR and RDraft EIR, as described in Chapter 2 of the Final EIR and Erratum. These changes are generally of an administrative nature such as correcting typographical errors, making minor adjustments or to the data, and adding or changing certain phrases for consistency and/or clarity. CAL FIRE finds that the changes and/or corrections are of a minor, non-substantive nature and do not require recirculation of the EIR.

In addition to the changes and/or corrections described above, the Final EIR provides further information in response to comments and questions from agencies and the public, as well as information gathered through ongoing implementation of survey and monitoring requirements, as described in Chapter 3 of the Final EIR and responses to comments. CAL FIRE finds that this additional information does not constitute significant new information requiring recirculation, but rather that the additional information clarifies or amplifies an adequate EIR.

In January 2012, the Sonoma County Board of Supervisors adopted a temporary moratorium pursuant to its Vineyard Erosion and Sedimentation Control Ordinance (“VESCO”) in order to consider potential changes to the ordinance to address erosion and sedimentation potentially caused by tree removal in connection with Level I and Level II vineyard and orchard site development, particularly on slopes exceeding 15%. Tree removal on the Project site is subject to state regulation pursuant to an approved Timber Harvest Plan (“THP”) and Timber Conversion Permit (“TCP”), and is exempt from local regulation in that regard. (See, e.g., Pub. Resources Code, §§ 4516.5, 4527.) In addition, approximately 80% of the proposed vineyard involves minor slopes of only 5 to 15%. With application of identified mitigation measures, the proposed Project would not result in any geologic hazards or adverse impacts related to erosion and sedimentation, and instead likely would result in a net *reduction* of sediment flowing to area waterways. To the extent VESCO applies to Project grading and site development activities, the Project fully complies with its requirements. CAL FIRE finds that this additional information does not constitute significant new information requiring recirculation, but rather that the additional information clarifies or amplifies an adequate EIR.

In response to comments on the Final EIR, Bollard Acoustical Consultants (“BAC”) prepared a technical memorandum providing additional information regarding the Project’s proposed corporation yard. This information elaborates on the issue of operational noise by providing additional noise data. The technical memorandum was prepared in response to comments from an adjacent landowner located immediately to the north of the project area referred to here as Starcross. Letters and comments regarding the impacts of noise from the proposed corporation yard were submitted both during the public scoping process, during the public comment period, and after the close of the public comment period. The Department reviewed the original noise assessment contained in Chapter 3.10 of the DEIR along with responses to comments to letters 10 and 17 (responses, 10-63, 10-64, 10-65 and 17-5) and the BAC memorandum, and found that the details regarding potential noise levels in relation to the Starcross Community that were provided during development of the Draft EIR remain valid. Consistent with the California Supreme Court’s opinion in Laurel Heights Improvement Association v. regents of the University of California (1993) 6 Cal.4th 1112, which also involved supplemental noise studies performed after the close of public comment, the addition of supplemental information did not alter the EIR’s conclusion that with the mitigations proposed in place, the noise effects of the project will not exceed the Sonoma County General Plan standards. Operational noise will be mitigated to an insignificant level.

Late comments concerning the noise analysis as a whole, including the BAC technical memorandum, have been addressed in the Final EIR. While these letters and

the BAC report have been included in the final record, the Department's review of the comment letters received after the close of public comment, did not identify new significant issues that had not been previously addressed. Likewise, the Department finds that the BAC report confirms the conclusion in the Draft EIR that the potential impact is less than significant and has been addressed.

Data in both the Draft and Final EIRs demonstrate that project noise in relation to sensitive uses will be mitigated to levels within established thresholds, including those set forth in the Sonoma County General Plan Noise Element. As a conservative measure to address unanticipated worst-case conditions, the mitigation identified in the Draft EIR has been amplified to include monitoring of operational noise from the property line, residence, and chapel area of the Starcross Community during the first harvest season to verify and ensure that the County's noise standards are satisfied. Compliance with the identified mitigation will ensure that noise levels would not exceed Sonoma County General Plan noise standards anywhere on the Starcross property, resulting in a less-than-significant impact. CAL FIRE finds that this additional information does not constitute significant new information requiring recirculation, but rather that the additional information serves to clarify, at the public's request, the information found in the Draft EIR.

Specifically, CAL FIRE finds as follows:

- a. The additional information, including the changes described above, does not constitute a disclosure showing that a new substantial environmental impact would result from the Project or from a new mitigation measure proposed to be implemented.
- b. The additional information, including the changes described above, does not constitute a disclosure showing that a substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- c. The additional information, including the changes described above, does not constitute a disclosure showing that a feasible project alternative or mitigation measure considerably different from others analyzed would clearly lessen the significant environmental impacts of the Project, but the Project's proponents decline to adopt it.
- d. The additional information, including the changes described above, does not constitute a disclosure showing that the Draft EIR and RDraft EIR were so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Based on the foregoing, and having reviewed the information contained in the Final EIR and in the record of the Agency's proceedings, including the comments on the Draft EIR, comments on the RDraft EIR, comments on the Final EIR, and the responses thereto, and the above-described information, CAL FIRE hereby finds that no significant new information has been added to the Final EIR since public notice was given of the availability of the Draft EIR and RDraft EIR that would require recirculation of the EIR.

3. Differences of Opinion Regarding the Impacts of the Project

In making its determination to certify the Final EIR and to approve the Project, CAL FIRE recognizes that the Project involves a number of controversial environmental issues and that a range of technical and scientific opinion exists with respect to those issues. CAL FIRE has acquired an understanding of the range of this technical and scientific opinion by its review of the Draft EIR, the RDraft EIR, the comments received on those documents and the responses to those comments in the Final EIR, in addition to testimony, letters, and reports regarding the Final EIR, as well as through consultation with experts, including but not limited to the experts of other public agencies, and its own experience and expertise in assessing environmental issues in connection with projects such as timber harvest plans and timber conversion proposals. CAL FIRE has reviewed and considered, as a whole, the evidence and analysis presented in the Draft EIR and RDraft EIR, the evidence and analysis presented in the comments on the Draft EIR and RDraft EIR, the evidence, analysis, and responses to comments presented in the Final EIR, the information submitted on the Final EIR, and the reports prepared by the experts, consultants, and Agency staff who prepared the EIR.

The proposal has been studied by numerous environmental experts including, but not limited to, water quality and wildlife scientists, cultural resources and air quality experts, as well as state, federal, and local environmental agencies. Through careful study of the site and the proposed Project over the past several years, CAL FIRE has gained a comprehensive and well-rounded understanding of the environmental issues presented by the Project. In turn, this understanding has enabled CAL FIRE to make its decisions after weighing and considering the various viewpoints on these important issues. CAL FIRE accordingly certifies that its findings are based on full appraisal of all of the evidence contained in the Final EIR as well as the evidence and other information in the record of proceedings addressing the Final EIR.

C. IMPACTS AND MITIGATION MEASURES

These findings provide CAL FIRE's written analysis and conclusions regarding the environmental impacts of the Project and the mitigation measures proposed by the Final EIR and adopted by CAL FIRE as conditions of approval for the Project.

In making these findings, CAL FIRE has considered the opinions of, and information provided by, staff and experts, other agencies, and members of the public. Under CEQA, the determination of impact significance, including the identification of thresholds or criteria for determining impact significance, is a judgment within the

Agency's discretion. CAL FIRE has determined that the significance thresholds used in the Final EIR are supported by substantial evidence in the record, including the expert opinion of the Final EIR preparers and Agency staff; and the significance thresholds used in the Final EIR provide reasonable and appropriate means of assessing the significance of the potential environmental effects of the Project.

CAL FIRE adopts, and incorporates as conditions of approval of the Project, the mitigation measures set forth in the Mitigation Monitoring Program (as set forth in Chapter 4 of the Final EIR, and erratum and attached to these findings as Exhibit A) to reduce or avoid the potentially significant and significant impacts of the Project. In adopting these mitigation measures, CAL FIRE intends to adopt each of the mitigation measures recommended for approval by the Final EIR. Accordingly, in the event a mitigation measure recommended in the Final EIR has inadvertently been omitted from Exhibit A, such mitigation measure is hereby adopted and incorporated in the findings below by reference. In addition, in the event the language describing a mitigation measure set forth in Exhibit A fails to accurately reflect the mitigation measures in the Final EIR due to a clerical error, the language of the mitigation measure as set forth in the Final EIR shall control, unless the language of the mitigation measure has been specifically and expressly modified by these findings.

In several comments on the Draft EIR and RDraft EIR, various measures were suggested by commenters as proposed additional mitigation measures or modifications to the mitigation measures identified by the EIR. Some of the EIR's mitigation measures were modified in response to such comments. Other comments requested minor modifications in mitigation measures identified in the Draft EIR and RDraft EIR, requested mitigation measures for impacts that were less than significant, or requested additional mitigation measures for impacts as to which the Draft EIR and RDraft EIR identified mitigation measures that would reduce the identified impact to a less-than-significant level. With respect to the additional measures suggested by commenters that were not added to the Final EIR, CAL FIRE hereby adopts and incorporates by reference the reasons set forth in the responses to comments contained in the Final EIR as its grounds for rejecting adoption of those mitigation measures.

1. Project-Level Impacts Found to be Less than Significant and Thus Requiring No Mitigation

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, Section 21002; CEQA Guidelines, Section 15126.4, subd. (a)(3), 15091.) Based on substantial evidence in the whole record of this proceeding, the Agency finds that implementation of the Project will not result in any significant impacts in the following areas and that these impact areas, therefore, do not require mitigation.

a. Land Use

Impact 3.2-1: Compatibility with Surrounding Land Uses

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The proposed Project use is consistent with the Sonoma County General Plan, and all potential land use compatibility impacts related to implementation of the proposed Project would be mitigated to a less-than-significant level as demonstrated throughout the technical chapters of the EIR. Consequently, the proposed Project would result in *less-than-significant* impacts regarding conflicts with surrounding land uses. (Draft EIR, pp. 3.2-19 – 3.2-21.)

Impact 3.2-2: Consistency of the Proposed Timber Conversion with Applicable Policies

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The proposed Project site is zoned Resources and Rural Development, which allows for a variety of uses including the growing and harvesting of vine crops as proposed. Per Article 7 of the Forest Practice Rules, a Timber Harvest Plan (“THP”) and Timber Conversion Permit (“TCP”) application are required for the transformation of timberland to a non-timber use. Both THP and TCP applications have been submitted for the Project in conformance with the Forest Practice Rules and are included as Appendix E and F to the Draft EIR.

The proposed Project would comply with applicable forestry regulations, including the Forest Practice Rules, and CAL FIRE has reviewed compliance with all applicable policies as part of the TCP approval process. The proposed Project therefore would have a *less-than-significant* impact in relation to consistency with policies concerning timber conversion. (Draft EIR, pp. 3.2-21 – 3.2-22.)

Impact 3.2-3: Consistency with the Project Site’s General Plan Land Use Designation

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Sonoma County General Plan states that the intent of the Rural and Resources Development designation is to protect lands used for timber,

geothermal and mineral resource production and for natural resource conservation. The Resources and Rural Development category allows residences at very low densities due to lack of infrastructure, greater distance from public services, poor access, conflicts with resource conservation and production, and significant physical constraints and hazards. The intent is that natural resource areas be managed and conserved and that production activities avoid depletion and promote replenishment of renewable resources. Agricultural use is an allowed use on lands designated Resources and Rural Development.

The proposed Project includes the conversion of approximately 173 acres of existing young-growth timber and grassland into vineyards. The proposed Project involves the construction of minimal structures, including a storage shed within a corporation yard and a detention basin to capture irrigation water for agricultural service purposes; residences would not be constructed on the Project site. As the proposed Project would replace the existing timberlands with a vineyard, the Project is consistent with the types of allowable uses (agricultural) allowed on the project site by the General Plan. In addition, the Project remains consistent with the maximum building intensity for the Project site by not constructing residences, and only minimal service structures on site; thereby not proliferating intensive infrastructure requirements on site. In addition, the on-site well would only provide potable water for on-site service personnel, and is not intended for irrigation purposes. Furthermore, as a ministerial entitlement of the EIR, the applicant is requesting the approval of an Erosion Control Plan, which would contribute to the protection of agriculture, watersheds, and floodplain tributaries from erosion, as stated in the Sonoma County General Plan. The proposed Project would be consistent with General Plan's specific intent and general vision for the area and would result in a *less-than-significant* impact. (Draft EIR, pp. 3.2-22 – 3.2-23.)

Impact 3.2-4: Consistency with County Ordinances

Finding: Under CEQA, no mitigation measures are required for impacts that would result in no impact. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: *Zoning* - Article 5 of the Sonoma County Zoning Ordinance states that the Resources and Rural Development (“RRD”) zoning designation is intended to be applied in lands needed for commercial timber production, geothermal production, aggregate resources production; lands needed for protection of watershed, fish and wildlife habitat, biotic resources, and for agricultural production activities that are not subject to all of the policies contained in the Agricultural Resources Element of the General Plan. Permitted uses under this zoning include the outdoor growing and harvesting of shrubs, plants, flowers, trees, vines, fruits, vegetables, hay, grain and similar food and fiber crops, including wholesale nurseries. The sole land use proposed for the site by the applicant is a vineyard, which is consistent with the outdoor growing and harvesting of vines - an explicitly allowed use under RRD zoning. The proposed Project would be consistent with Sonoma County Zoning Ordinance.

County Ordinance 5651 amended the standards for timberland conversion in the RRD; however, the ordinance includes an exemption for projects submitted prior to October 4, 2005. The proposed Project submitted a complete application prior to the above-mentioned date and is exempt from the changes made by this ordinance.

Vineyard Erosion and Sedimentation Control Ordinance - As an entitlement of the EIR, the applicant is requesting the approval of an Erosion Control Plan, which would ensure compliance with the Sonoma County Vineyard Erosion and Sediment Control Ordinance (“VESCO”) and the protection of agriculture, watersheds, and floodplain tributaries from erosion. The purpose of VESCO is to safeguard public health, safety, and welfare; minimize erosion and sedimentation in connection with vineyard planting and replanting in the County; protect the lands, streams, and riparian habitat of the County; and ensure the long-term economic viability of the County’s viticultural resources. In conformance with VESCO, the project engineer designed an Erosion Control Plan (“ECP”). The ECP was evaluated by an expert in hydrology and water quality, who found that with application of identified mitigation measures, the proposed Project likely would result in a net reduction of sediment flowing to area waterways of 24-39 tons/year. In addition, the Project would comply with the required setbacks for Class II and III streams. Approximately 80% of the proposed vineyard involves slopes of 5 to 15%.

In January 2012, the Sonoma County Board of Supervisors adopted a temporary moratorium pursuant to VESCO in order to consider potential changes to the ordinance to address erosion and sedimentation potentially caused by tree removal in connection with Level I and Level II vineyard and orchard site development, particularly on slopes exceeding 15%. Tree removal on the Project site is subject to state regulation pursuant to an approved Timber Harvest Plan (“THP”) and Timber Conversion Permit (“TCP”), and is exempt from local regulation in that regard. (See, e.g., Pub. Resources Code, §§ 4516.5, 4527.)

CAL FIRE thus finds that the proposed Project complies with the applicable zoning designations and County ordinances for the Project site. The proposed Project would result in *no impact* in relation to consistency with County ordinances. (Draft EIR, pp. 3.2-23 – 3.2-24.)

Impact 3.2-5: Consistency with Applicable General Plan Goals and Policies

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The pertinent Sonoma County General Plan goals and policies applicable to the proposed Project are included within the Land Use Element and Resource Conservation Element.

The Land Use Element - The General Plan goals listed in the regulatory context are primarily concerned with conserving agricultural areas and preventing the proliferation of intensive urban development in areas of Sonoma County with little or no infrastructure. In addition, the General Plan Agricultural policies expressly seek to protect agricultural areas from encroachment of urban and other non-agricultural uses and preserve the economic benefits generated by agricultural land uses. The proposed Project involves the conversion of approximately 173 acres of young-growth timber and grassland into vineyards. Buildings or structures do not currently exist on-site. The Project would involve the construction of minimal agricultural service buildings for the sole purpose of supporting the on-site agricultural activities. The project does not involve intensive urban land uses or the proliferation of growth in areas in which there are inadequate public services and infrastructure. The Project would grow grapes for harvest only; processing and sale would occur off-site. The Project will maintain the site in agricultural production, while preserving the non-vineyard timberlands in perpetuity with permanent deed restrictions. Land Use Policy 6 of the Sonoma County General Plan protects the right of the project applicant to engage in agricultural production on the site. (Draft EIR, pp. 3.2-24 – 3.2-25.)

Resource Conservation Element - The County's Resource Conservation Element of its General Plan guides land use decisions that will contribute to the long-term maintenance of resource production. In addition, the applicant is requesting the approval of an Erosion Control Plan, which would contribute to the protection of agriculture, watersheds, and floodplain tributaries from erosion, as stated in the Sonoma County Zoning Ordinance. Permanent cover cropping between the vine rows will provide a competitive barrier to weeds and woody growth. The Project has been designed to reduce net sedimentation of waterways; the Project would not degrade soil, water resources, or fish habitat. Rather, analysis of Project hydrology shows that it could decrease sedimentation, resulting in improvements to water resources and fish habitat. (Draft EIR, pp. 3.2-25 – 3.2-26.)

CAL FIRE thus finds that the Project is consistent with Sonoma County's General Plan goals and policies, including those stated within the Land Use Element and the Resources Conservation Element, and any associated environmental impacts would be *less-than-significant*. (Draft EIR, pp. 3.2-24 – 3.2-26)

b. Air Quality

Impact 3.3-2: Air quality impacts associated with additional vehicles and agricultural activities on the Project site

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The incremental daily emission increases associated with the Project are identified in Table 3.3-3 for reactive organic gases (ROG), oxides of nitrogen (two

precursors of ozone), and PM10. The emissions shown can be considered worst-case estimates, as the assumption is made that all emissions are additive (although peak emissions from several categories would occur at different times of the year). As shown in Table 3.3-3, Project emissions would not exceed the thresholds of significance. CAL FIRE thus finds that the Project would have a *less-than-significant* impact on regional air quality. (Draft EIR, p. 3.3-12.)

Impact 3.3-3: Impacts related to an increase in traffic volumes and congestion levels, resulting in a change of carbon monoxide (CO) concentrations

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: On the local scale, the Project would change traffic on the local street network, which changes CO levels along roadways used by Project vehicles. CO is an odorless, colorless, poisonous gas, which is primarily generated by automobiles. Concentrations of CO are highest near intersections of major roads. New vehicle trips would add to existing CO concentrations near streets providing access to the site. The traffic study prepared for the proposed Project found that Project traffic would not adversely affect any existing intersections, nor cause significant deterioration of the Level of Service (LOS) on affected arterial roads. The low level of CO that would be generated by Project vehicles would not result in an exceedance of CO thresholds on or near local roadways. Given that the site is in an attainment area for CO (the state and federal ambient standards are met), coastal Sonoma County has relatively low background levels of CO, and the Project would not lead to roadway congestion, CAL FIRE finds that the Project's impact on CO concentrations would be *less-than-significant*. (Draft EIR, pp. 3.3-12 – 3.3-13.)

c. Biological Resources

Impact 3.4-3: Impacts pertaining to loss of wildlife corridors

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Wildlife corridors are linear and/or regional habitats that provide connectivity to other natural vegetation communities within a landscape fractured by farming, urbanization, and/or other development. Wildlife corridors have several functions: 1) they provide avenues along which wide-ranging animals can travel, migrate, and breed, allowing genetic interchange to occur; 2) populations can move in response to environmental changes and natural disasters; and 3) individuals can recolonize habitats where populations have been locally extirpated (Beier and Loe 1992). All three of these functions can be met if both regional and local wildlife corridors are accessible to

wildlife. Regional wildlife corridors provide foraging, breeding, and retreat areas for migrating, and dispersing wildlife populations. Local wildlife corridors provide access routes to food, cover, and water resources within restricted habitats.

Experts examined the Project site to determine if there are wildlife corridors of regional or other significance. Based on the opinion of these experts, the Project site does not appear to support what would be considered a regionally significant wildlife corridor. Nevertheless, wildlife corridors through the Project site play a valuable role in supporting use of the area by local wildlife populations and provide a valuable asset to local wildlife species. The Project would convert approximately 173 acres of existing North Coast Coniferous Forest, Northern Coastal Grasslands, and Coastal Scrub plant communities to vineyards and vineyard support infrastructure. These vegetation communities support the foraging and nesting activities of various wildlife species on the Project site. The timber harvest and vineyard construction could result in direct adverse impacts to the movement patterns of individual animals using the proposed timber conversion area as a local movement or migration corridor.

As discussed in the THP, disruption of wildlife habitat and activities due to the proposed Project would be reduced to a less than significant impact level through the provision of suitable movement corridors between the vineyard units. The applicant would preserve wildlife corridors within the Project area by fencing only the vineyard units, and incorporating remaining natural habitat, such as mixed-hardwood or oak woodland, riparian areas and tributary set-asides, and other high-use habitats and elements, into the site plan. Fencing around the vineyard units would include a number of “escape gates” to allow for the safe release of deer or other wildlife, should they become trapped in the vineyard units. The applicant will protect approximately 151 acres with permanent deed restrictions on the site, part of which will preserve a wildlife corridor running the length of Patchett Creek on the property. The streamside conservation area will be a minimum of 100 feet in width on either side of the creek, as measured from the top of bank. All other tributaries will be protected with buffers that are 25 to 75 feet in width, on either side of the top-of-banks.

All streamside conservation areas on the Project site will be protected in deed restricted areas. Canopy cover in this area ranges from 50 percent to 100 percent, and the existing vegetation, including redwood, Douglas fir, and riparian vegetation, will not be removed from the protected corridors. In addition, the 15.65-acre thin-lobed Horkelia preserve will protect a wetland area and will provide a corridor for wildlife to move from the west side of the Project to areas south of the site, including the Patchett Creek headwaters. Because the Project design incorporates features intended to preserve wildlife access through the property, and since no regionally significant wildlife corridor is known to occur on the Project site, CAL FIRE finds that impacts relating to loss of wildlife corridors are *less-than-significant*. (Draft EIR, pp. 3.4-127 – 3.4-128.)

Impact 3.4-8: Impacts pertaining to the potential for Project-related introduction or spread of tree-afflicting diseases

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project site is located within the Coastal Pitch Canker and Sudden Oak Death Zones of Infestation. Pitch canker is caused by the fungus *Fusarium circinatum*. It affects various pine species as well as Douglas fir, and is frequently fatal to susceptible pine species which become infected, with no effective treatment currently available. The disease is believed to be spread primarily by insects, such as pine engraver beetles. The THP notes that signs of pitch canker have not been observed on the Project site. Nevertheless, as a precautionary measure and in accordance with state regulations (14 California Code of Regulations, section 917.9), the THP requires standard slash treatment measures designed to minimize the enhancement of breeding habitat for the engraver beetle and other forest insect pests.

The THP also addresses Sudden Oak Death (“SOD”), caused by the fungus *Phytophthora ramorum*. SOD was first reported in the mid-1990s, killing oaks in Marin and Santa Cruz counties. The pathogen was isolated in 2000, and since that time, the disease has spread throughout the coastal counties of northern and central California and currently infects dozens of tree and plant species. While a preliminary preventive treatment has been developed, an effective treatment does not exist for hosts which are already infected. The disease can be spread through the transport of infected plant material to new areas. Non-oak species may not be killed by the disease, but can commonly act as foliar hosts. Protocols of the California Department of Food and Agriculture (“CDFA”) prohibit movement of plant materials from *Phytophthora ramorum* host plants within or out of counties infested with SOD without authorization of the local County Agricultural Commissioner. The Project THP requires implementation of mitigation measures that comply with CDFa regulations to minimize the risk of transporting this pathogen.

CAL FIRE finds that implementation of measures designed to prevent spread of tree-afflicting diseases as part of the Project THP/TCP will reduce the impact of potential introduction or spread of the aforementioned diseases to a *less-than-significant* level. (Draft EIR, p. 3.4-137.)

Impact 3.4-12: Water temperature impacts to special-status salmonids

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Fisheries Assessment for the Project notes that the Gualala River and its tributaries have been identified as having serious water temperature problems for cold water fish species such as steelhead and coho salmon. Optimal water temperatures for steelhead fry and juvenile rearing range from 48°F to the mid-60°s. Coho salmon generally prefer somewhat cooler water temperatures. Temperatures warmer than the mid-60°s induce thermal stress in steelhead and coho salmon, and can also promote disease and reduce growth. Few of the waterways within the Gualala Basin have suitable water temperatures for steelhead and coho salmon survival during summer months, although Higgins (2003) noted that the flow from Patchett Creek may provide an area of cooler water for juvenile steelhead trout near the confluence of Patchett Creek and the Wheatfield Fork of the Gualala River. Water temperature can be adversely affected by timber harvesting due to the removal of canopy cover over watercourses. Temperature may also be affected by reductions in flows, as well as by sedimentation, due to the effect of turbid water absorbing an increased amount of solar radiation.

Although the proposed project includes timber harvesting and earthmoving activities, the Project is not expected to result in water temperature increases to area watercourses due to canopy removal, because avoidance of the Watercourse and Lake Protection Zone (“WLPZ”) during timber harvesting activities and vineyard development will preserve the existing shade canopy over Patchett Creek and the Class III waterways. In addition, the Project is not expected to result in increased sedimentation of watercourses with incorporation of the recommended mitigation; as such it is not likely to cause sediment-induced water temperature increases. Low summer instream flows are unlikely to result from the Project for reasons explained below as respects Impact Statement 3.4-11. The Project thus is not expected to result in adverse water temperature effects. CAL FIRE therefore finds that the impact of the Project on aquatic resources resulting from increased water temperature is *less-than-significant*. (Draft EIR, pp. 3.4-143 – 3.4-144.)

Impact 3.4-13: Impacts to special-status salmonids from Project-related increases in peak flows

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project Hydrologic Assessment finds that minor increases in peak flow in Patchett Creek and downstream areas could result from Project implementation. As noted in the project Fisheries Assessment, increases in peak flows could result in downstream scouring and displacement of juvenile steelhead and coho salmon to less suitable habitat types, which would be considered a significant impact. It is estimated that peak runoff flows for Patchett Creek would increase by two to five percent at Node 1, and by two to four percent at Node 2 (see Draft EIR, Figure 3.7-8 of the Hydrology and Water Quality section for Node locations). The analysis conservatively assumed that the reservoir would be full and that all flows would be directed towards Patchett Creek. The reservoir will not be full the vast majority of the

time, however, and a portion of the runoff will be collected and pumped to the reservoir for storage. Under such operating conditions, the total peak runoff under a 2-year storm is estimated to decrease by four percent at Node 1 and by three percent at Node 2. Net gain in peak flow for a 2-year storm event may be, on average, one percent.

The hydrology analysis further found that channels downstream of the site have a low sensitivity to potential peak flow changes from the Project because of the small potential magnitude of peak flow increase (less than 10 percent). The Project also includes the installation of gully protection measures and sedimentation basins, which are expected to reduce rather than increase existing sedimentation. Project-related contributions to flow in downstream channel reaches are not expected to alter the morphology or hydrology of Patchett Creek. CAL FIRE thus finds that peak flow impacts do not represent a substantial detriment to downstream steelhead trout, and the impact is *less-than-significant*. (Draft EIR, pp. 3.4-144 – 3.4-145.)

Impact 3.4-14: Impacts to special-status salmonids from Project-related decreases in instream base flows

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project Fisheries Assessment notes that one result of past land use activities within the Gualala River watershed has been reduced instream base flow. Salmonid spawning and rearing success are dependent upon adequate flow during these important life stages. Any substantial change in flow in Patchett Creek would be a significant impact. Based on the various factors considered in detail in the EIR and supporting analyses, the Project will not substantially change flows in Patchett Creek as to result in a significant adverse impact. Available instream flows after Project implementation will be sufficient to maintain necessary aquatic habitats for anadromous fish. CAL FIRE finds that the impact of Project-related instream flow changes on salmonids is *less-than-significant*. (Draft EIR, pp. 3.4-145 – 3.4-147.)

d. Geology

Impact 3.6-1: Impact of seismic activity on proposed vineyard blocks

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The geologically active San Andreas Fault extends through Plantation and the South Fork of the Gualala River canyon, approximately three miles southwest of the Project site. Earthquakes generated from this fault or other sources may cause ground shaking during the lifetime of the Project, but are not normally considered as a design factor during vineyard development. The only structures that would be

constructed for the Project are those associated with the on-site 2/3-acre corporation yard area. As required by Sonoma County, all structures would be constructed to Uniform Building Code (“UBC”) standards. While the Project site is located approximately three miles from an active fault line, the presence of bedrock at a relatively shallow depth would tend to minimize potential for earthquake induced damage at this location. CAL FIRE finds that Project impacts associated with seismic activity are *less-than-significant*. (Draft EIR, p. 3.6-13.)

Impact 3.6-3: Impacts caused by road-related landslides

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Road-related landslides have been identified as the greatest current contributor of sedimentation to the Gualala River Watershed. Landslides not only result in potential impacts to downstream water quality, but also create potential safety issues to timber harvesters and vineyard workers. All existing seasonal roads, tractor roads, and landings located used for timber harvesting within the Project area that are not incorporated into the vineyard development and management or will provide access to neighboring residences will be abandoned following completion of timber harvest operations. Temporary roads associated with timber and tree removal will also be located away from streambeds on slopes that are less than 20 percent and in areas that are currently stable.

Access to the vineyard units following the conversion of the site will be via the existing permanent roads shown on the ECP. Roads will be constructed in conformance with the measures included in the ECP, including: all access roads will be crowned and graded to prevent flow in wheel tracks, water bars will be installed at 100’ on center max for slopes over 15 percent, rocked fords will be installed through seasonal swales or runoff areas, ditches will be graded and shaped, cut and fill slopes will be constructed consistent with slope stability, available access corridors, and side-cast material stabilized by slope limits, compaction, mulching, seeding. Any road surface erosion that may occur will drain to sedimentation basins. The performance of the sedimentation basins and other measures intended to reduce onsite erosion will be evaluated for a number of years after Project completion to ensure that on-site erosion is reduced as compared to the existing conditions. The potential for road-related landslides will be minimized and erosion reducing measures would be implemented and evaluated over time; as such, CAL FIRE finds that safety impacts are *less-than-significant*. (Draft EIR, pp. 3.6-14 – 3.6-15.)

Impact 3.6-5: Impacts to slope stability during and after construction from conversion and grading activities

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: Slope stability hazards are generally low or very low in the Project conversion area, with some areas of moderate hazard. Landslides have not been observed in the Project conversion area during field studies or in previous landslide surveys of the area. In addition, local slopes along the perimeter of conversion areas are not sufficiently steep (e.g. approximately 60% gradient or greater) to be generally susceptible to debris slide processes, and the extent and density of woody vegetation (trees and shrubs) that will remain in these areas provide significant additional reinforcement to the soil, reducing the potential for slope failure in the future.

Potential increases in pore water pressure or short-term increases in the elevation of a perched water table lying above the geologic contact between the overlying Ohlson Ranch Formation and the underlying Franciscan Formation could, hypothetically, translate increased soil moisture from hydrologic change into increased risk of debris slides or debris torrents. Evidence of such landslides does not exist in the historic aerial photo record analyzed by the California Geological Survey, however. Potential increases in soil moisture in the vicinity of the Project area are not expected to significantly increase potential slope instability.

One area of “high” potential for landslides is located within the watershed described by Drainage Node 33. This area of high potential was observed in the field to have evidence of one debris slide originating on steep slopes in past decades. Vineyard drainage for Node 33 will be largely controlled by sedimentation basins, mitigating the potential for increased soil moisture on down-gradient slopes. Existing woody vegetation is to be retained in this area, and the maintenance of root strength in this area is expected to provide significant reinforcement of slopes. Project hydrologic impacts are not expected to significantly increase landslide hazards in the area, either within or adjacent to Project conversion areas. CAL FIRE finds that implementation of the proposed Project would result in a *less-than-significant* impact to slope stability. (Draft EIR, pp. 3.6-16 - 3.6-17.)

e. Hydrology and Water Quality

Impact 3.7-1: Impacts relating to irrigation water availability

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: The proposed vineyard would obtain irrigation water by way of a surface water collection and storage system. The system will capture stormwater runoff as diffuse upland sheet flow, which would be delivered to the two acre-foot sump pond, then pumped to an upland off-channel 73 acre-foot reservoir proposed for seasonal storage. The reservoir will be recharged by a combination of captured sheet flow and direct precipitation on an annual basis. The applicant does not propose to use groundwater for vineyard irrigation.

The reservoir will be installed during the summer and fall of the year before vineyard planting will begin; this would allow the reservoir to be filled from winter rains. Vineyard planting in the spring will then have access to a full reservoir to irrigate the young vines. Drought-resistant, deep-rooted grapevine rootstock will be planted on-site for all vineyard units. The vineyard likely will be established over a two to three year period; the full irrigation amount therefore would not be required immediately. As a result, there will be flexibility to adjust the plantings to climatic conditions should the vineyard begin operations during a below average water year. For the purposes of the environmental impact analysis, however, the EIR conservatively evaluates the full planting of the vineyard during the first year. Based on the conservative assumptions used in the analysis, the vineyard will have adequate water supply during average-year conditions for vineyard establishment purposes. In addition, the Project design and proposed vineyard product allow for the reduction of water use during drought years. CAL FIRE finds that the Project's impact relating to irrigation water availability is *less-than-significant*. (Draft EIR, pp. 3.7-50 – 3.7-53.)

Impact 3.7-5: Water quality impacts pertaining to organic debris during Project timber harvest activities

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: Organic debris can range in size from fine particles of decomposing flora or fauna to forest floor litter such as leaves, or to downed branches and entire trees. Organic debris in a watercourse can have either positive or negative effects, depending on the size and stability of the material. An excess of smaller organic debris, however, may have undesirable effects by contributing to sedimentation and water quality problems.

A moderate amount of “large woody debris” (LWD) is present in watercourse channels on and adjacent to the plan area from historic logging 30 or more years ago, and from windfalls and fallen snags. The Class II and Class III streams on the property are generally too small and shallow in slope to move significant amounts of LWD downstream to enhance salmonid habitat. The existing LWD on and near the Project site acts as a check that slows waterborne sediment, however, and reduces the potential for downcutting of the channel.

The Project THP must implement water quality protection measures that comply with the current California Forest Practice Rules (refer to Impact Statement 3.7-2 below). The buffered areas provided by WLPZs during the proposed timber harvesting activities and vineyard development and operations will effectively prevent significant amounts of fine organic debris from entering the nearby Class II and Class III watercourses. Timber to be harvested within the conversion areas adjacent to WLPZs will be removed from the site or piled for burning well away from WLPZs. Existing LWD in and near Project site watercourses (i.e., within the WLPZs) will not be disturbed during timber harvest or vineyard development activities. Additionally, the retention of all trees in the WLPZs will ensure future recruitment of LWD into the Class II and Class III stream channels on the site. For these reasons, the proposed timber harvest activities would not be expected to result in adverse effects to the existing organic debris content of the Class II and III watercourses adjacent to the conversion area. CAL FIRE thus finds the impact *less-than-significant*. (Draft EIR, pp. 3.7-80 – 3.7-81)

Impact 3.7-6: Project-related impacts to groundwater storage and recharge

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: The environmental analysis comprehensively studied the Project's potential effects on groundwater, including effects associated with timber harvesting, the proposed irrigation system, and the proposed domestic well. The analysis shows that, although some soil compaction could occur with implementation of the Project, this will be counteracted by site preparation (limited ripping of soils). Overall higher water delivery to the soil owing to reduced tree canopy interception is likely to further offset compaction. Cover crops and elongated flow paths in v-swales will reduce sheet flow velocity and encourage infiltration. Groundwater flow gradients affected by the Project are toward Patchett Creek (east-southeast), away from known domestic wells. Considering all these factors, vineyard development is not expected either to reduce groundwater percolation or affect domestic wells and water supplies.

The Project will not utilize groundwater for irrigation purposes and could be expected to increase groundwater infiltration rates by reducing evapotranspiration. The proposed on-site well would be small and low-yield. Runoff capture is not expected to affect groundwater recharge. CAL FIRE thus finds that the Project would not be expected to adversely affect groundwater storage or recharge rates in the area, and the impact is *less-than-significant*. (Draft EIR, pp. 3.7-81- 3.7-86.)

Impact 3.7-7: Impacts pertaining to peak runoff flows and exposure of people or structures to flood hazard

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Implementation of the Project would be likely to result in a minor increase in peak runoff flows. The largest predicted increase was calculated at five percent over existing conditions at the Node 1 measurement location in a two-year storm if water is not routed to the on-site reservoir. Overall peak flow for the analysis area in aggregate increases about 10 percent if the reservoir is full and runoff is routed through the sump to Drainage Node 20. If the reservoir is being filled, then the aggregate change in peak runoff is an increase of about 7 percent. The Hydrologic Evaluation showed no potential flood hazards that could result from implementation of the proposed Project. CAL FIRE finds that the impact is *less-than-significant*. (Draft EIR, pp. 3.7-87 – 3.7-88.)

Impact 3.7-8: Impacts related to fog drip

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Due to the site's relatively close proximity to the Pacific Coast, the site is subject to fog drip. The USDA Forest Service conducted a study at the Caspar Creek Experimental Watershed in 1998. The study determined that fog drip makes a highly variable, but hydrologically insignificant, contribution to groundwater and baseflow processes in the coastal redwood/Douglas fir forest type at Caspar Creek. During the study, measurements were conducted underneath the forest canopy and in nearby clearings to identify the volume of precipitation that results from fog drip. The study found that at the sites with the largest interception volumes, fog drip accounted for only three percent of the mean annual precipitation. Fog drip augments dry season precipitation by up to 65 percent, however. In addition, fog drip serves to increase ambient humidity and moderate air temperatures.

While fog drip augments dry season precipitation, evapotranspiration and water interception by forest cover has a substantially larger effect on soil moisture, groundwater storage, and summer base flows. The high evapotranspiration rate of forest cover, in combination with the interception of rainfall by tree canopies, has a large effect on soil moisture. The water balance analysis conducted at Caspar Creek found that the reduction in evapotranspiration more than offset the potential decrease in fog drip interception. In fact, annual water yield and summer flows have been observed to increase following timber harvests at Caspar Creek, which indicates that following timber harvest, the effect of reduced interception and transpiration on groundwater and summer flows exceeds diminishment due to the loss of fog drip. Accordingly, while fog drip is important to forest ecology, the net effect on groundwater and summer flows is more than offset by the reduction in evapotranspiration and canopy interception.

In addition the Fairfax Conversion Project is not entirely forested. Approximately 19 acres of the impact area is currently grassland habitat. Coastal scrub habitat is also located on the eastern portion of the Project site. Furthermore, the Project has been

designed to preserve and protect 151 acres, which include conifers and hardwoods. As a result of the above-described study's findings, the Project's incorporation of conservation areas containing mature trees, and the consideration of the current site conditions, CAL FIRE finds that the Project would have a *less-than-significant* impact related to fog drip. (Draft EIR, pp. 3.7-88 – 3.7-89.)

f. Transportation and Circulation

Impact 3.9-1: Operational traffic impacts to study intersections and roadway segments/links

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: Although the proposed vineyard will not be open to the public and therefore not increase existing tourist traffic on area roadways, the vineyard will generate traffic during pruning and harvest periods. Annual pruning of the vines will take approximately two to four weeks. Traffic during the pruning period will be limited to passenger vehicles and standard trucks. During harvest time, additional traffic will be limited to passenger vehicles and trucks driven by vineyard personnel and commercial grape trucks. Harvesting operations are also estimated to take a maximum of two to four weeks each year. Commercial grape truck traffic will be limited to approximately three loads per day at maximum vineyard production.

All study intersections are projected to operate at Level of Service (“LOS”) A under Existing Plus Project Conditions. A comparison of Tables 3.9-2 and 3.9-4 of the Draft EIR illustrates that the LOS for the study intersections remain unchanged with the addition of the proposed Project, with insignificant increases in delays in the near term. Additionally, Table 3.9-5 of the Draft EIR shows that the SR-1, Annapolis Road, and Stewarts Point Road segments in the Project vicinity are expected to operate at LOS B or better under the Existing Plus Project scenario. Traffic generated by the proposed conversion of the existing timberland area to a vineyard is not expected to cause any noticeable congestion on the SR-1, Annapolis Road, and Stewarts Point Road study segments. CAL FIRE therefore finds that the Project would have *less-than-significant* impacts to study intersections and study roadway segments/links. (Draft EIR, pp. 3.9-15 – 3.9-17.)

Impact 3.9-3: On-going traffic impacts to due to vineyard management operations

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: Once initial vineyard development is complete, traffic would be generated by the vineyard during pruning and harvest periods. Annual pruning of the vines will take approximately 2 to 4 weeks. Due to the short duration of pruning operations and the limited number of vehicles required to transport Project personnel, this traffic will not significantly change current traffic patterns along the haul route. During harvest time, additional traffic will be limited to passenger vehicles and trucks driven by vineyard personnel and commercial grape trucks. As shown in Table 3.9-3 in the Draft EIR, peak trips during this period are not expected to exceed 75 total trips in the morning and evening; including two truck trips during each period. Harvesting operations are estimated to take a maximum of 2-4 weeks each year. Again, the additional passenger vehicle traffic generated would not affect current traffic patterns along the haul route. CAL FIRE thus finds that the Project would result in a *less-than-significant* impact. (Draft EIR, p. 3.9-19.)

Impact 3.9-4: Impacts to alternative transportation services

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Description: The Mendocino Transit Authority Route 95 provides service from Point Arena south to Santa Rosa. Annapolis Road, which provides access to the Project site, is located along Route 95. Route 95 would provide the nearest public transportation services in the vicinity of the Project site. The Project will not introduce additional residents in the area. Thus there is no need for the Project to be served by public transportation. CAL FIRE finds that the Project would have a *less-than-significant* impact to alternative transportation. (Draft EIR, p. 3.9-19.)

g. Noise

Impact 3.10-2: Long-term increase in existing traffic noise levels

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project will increase peak hour traffic volumes on State Route 1, Annapolis Road, and Stewarts Point Road by 15 to 30 percent during the AM peak hour, and by 14 to 32 percent during the PM peak hour. The Project will generate 146 average daily employee automobile trips during the two- to three-week harvest season, as well as four heavy truck trips per day to haul the harvested grapes. During non-harvest conditions, the Project could create the need for delivery of approximately one truckload of fertilizer throughout the season.

Because the decibel scale is logarithmic, a doubling of traffic on local roadways (i.e., a 100 percent increase in volume) would correspond to a 3 dB increase in ambient

noise levels. As noted in the traffic study, however, the Project would be expected to result in a maximum traffic volume increase of 30 to 32 percent on local roadways during the harvest season, resulting in a maximum predicted traffic noise level increase of only 1.5 dB over existing baseline levels. This level of increase is well below the 5 dB traffic noise significance threshold used for the present analysis. CAL FIRE thus finds that the impact is *less-than-significant*. (Draft EIR, p. 3.10-8.)

h. Aesthetics

Impact 3.11-1: Impacts to scenic resources as defined in the Sonoma County General Plan

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Sonoma County General Plan defines scenic resources under three open space categories in the Open Space Element: community separators, scenic landscape units, and scenic highway corridors. As indicated on Figure OS-2 in the Sonoma County General Plan, the Project site does not lie within a scenic landscape unit, a community separator, or a scenic highway corridor. The Sonoma County General Plan EIR also divides the County into distinct visual units. The Project site is located in the Mendocino Highlands (Visual Unit #2). According to the Sonoma County General Plan EIR (page 5), mitigation measures will reduce the level of impact on visual units (and scenic backdrops) to an insignificant level. These mitigation measures do not apply to the Project site. For example, VR-2.1 states “Highway 1, the proposed by-pass, Cazadero Highway, Bohemian Highway, Jonive Road, Coleman Valley Road, and Stewarts Point/Skaggs Springs Road are designated as scenic highways.” None of these roads are located adjacent to the Project property. Furthermore, the proposed vineyard use is consistent with the type of development/use anticipated for the site in the General Plan. CAL FIRE thus finds that the Project would result in *less-than-significant* impacts to designated scenic resources. (Draft EIR, p. 3.11-6.)

Impact 3.11-2: Impacts to existing scenic views visible from Annapolis Road

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The existing condition of the site includes a mixture of grasslands and young-growth forest cover (see Figure 3.11-3 of the Draft EIR). Scenic views of the property from much of Annapolis Road would be altered from existing views of timberland and grassland to views of vineyard rows. As can be seen in Figures 3.11-3 to 3.11-6 of the Draft EIR, however, the Project area is characterized by a mixture of open grasslands, agricultural uses, and young-growth forested areas. Extensive vineyard areas are located northeast and east of the Project site along Annapolis Road. The Scenic

Resources Section in the Open Space Element of the Sonoma County General Plan is primarily concerned with maintenance of the openness of the scenic resources, which provides important visual relief from urban densities (General Plan, p. 175). Because the Project will not involve the construction of numerous buildings or result urbanization, implementation of the Project will result in a change from one rural setting (young-growth timber and grasslands) to another (vineyard), thereby preserving the “openness” of the Project site. Redwoods are concentrated primarily along the steeper drainages of the project site and as such many are protected in stream protection buffers established as part of the proposed project. The Project site was formerly harvested, likely between 1940 and 1960. Two large redwood trees exist on the site, and they will be preserved in protected corridors. In addition, Annapolis Road is not included among the scenic corridors listed by the General Plan (See Figure 3.11-1 of the Draft EIR). CAL FIRE thus finds that the conversion of second-growth timber and grasslands to vineyard would result in *less-than-significant* impacts to views of the project site from Annapolis Road. (Draft EIR, pp. 3.11-6 – 3.11-9.)

Impact 3.11-3: Impacts to views from adjacent residences

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Agriculture, including timber and wine grape production, is a typical land use in the Project area. Existing vineyards are located northeast and east of the property boundary, and the general vicinity surrounding the Project site also includes other properties that are in the process of conversion to vineyards. The area to the south of the site is currently used for timber production. Several residential properties surround the Project site as well, including the Starcross Monastic Community (34500 Annapolis Road) to the north and six rural residences located immediately northwest, west, and south of the Project site (see Figure 3.11-7 of Draft EIR). Existing views of the Project site from nearby residences consist of second-growth forest and grasslands. The Project will alter existing views; however 151 acres (nearly half) of the site will be permanently preserved, and a substantial number of trees would remain on the Project site, including two large redwood trees located on the property. The Project will result in a change from one rural setting (second-growth timber and grasslands) to another (vineyard). In addition, the streamside conservation areas, cultural resources sites, biological reserves, and natural topographic relief will serve to break the vineyard area into smaller, less visually pronounced areas. Screening trees along Annapolis Road in the western portion of the Project site will be retained. As a result, the existing grassland and forest views will be replaced with a mixture of vineyards and forests. Vineyards are considered to be a highly valued landscape within Sonoma County. CAL FIRE thus finds that the Project would have a *less-than-significant* impact to views from adjacent residences. (Draft EIR, pp. 3.11-9 – 3.11-10.)

Impact 3.11-4: Impacts associated with light and glare from the proposed project

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project site is currently undeveloped and consists of second-growth coniferous forest interspersed with grasslands and the remnants of previous agricultural uses. As such, the site currently does not produce any light or glare. While the Project will result in the construction of a small corporation yard on 2/3-acre south of Annapolis Road, the corporation yard will not be lighted at night. The yard will be equipped with motion-activated lights as a theft-deterrent. The only times the lights will actually be turned on at night for an extended period of time are (1) when the vineyard crew needs to prepare the tractors for nighttime operations, and (2) a few days during harvest should the crew need to start picking grapes early. In general, grape harvesting activities associated with the proposed Project could result in the generation of light at night during harvesting season. Grape harvesting may take place by mechanical means during the night and early morning hours.

Although floodlights will not be used during harvest season, the harvesting machinery itself contains lights (headlights and other lights), which will create new sources of light and glare on the Project site. Depending upon the location of the harvesting operations, nearby residents could be subject to light and glare from the machinery. Given the varied topography of the Project site, however, and the incorporation of approximately 151 acres of streamside buffers and preserve areas throughout the Project site, much of the harvest machinery lighting will not be observable to residents in the site vicinity. Night and early morning light generation associated with grape harvesting activities will be of a seasonal nature, occurring only two months out of the year; and the lights will be concentrated in only a small area of the site at any given time. CAL FIRE thus finds that the Project would have a *less-than-significant* impact regarding light and glare. (Draft EIR, pp. 3.11-10 – 3.11-11.)

Impact 3.11-5: Consistency of the proposed Project's appearance with the surrounding scenery

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: As shown in Figures 4.11-3 to 4.11-7 of the Draft EIR, the project site is currently surrounded by timberland, residences, a monastery, a cemetery, olive orchards, and existing vineyards to the east and northeast. Although implementation of the proposed Project will result in the conversion of existing second-growth timber and grasslands to a vineyard, because the Project site is located adjacent to existing vineyards,

and because other vineyards exist in the vicinity, the Project is consistent with the surrounding scenery. CAL FIRE thus finds that the impact is *less-than-significant*. (Draft EIR, p. 3.11-11.)

2. Cumulative Impacts Found to be Less than Significant and Thus Requiring No Mitigation

Under CEQA, no mitigation measures are required for impacts that are less than significant. (Pub. Resources Code, Section 21002; CEQA Guidelines, Section 15126.4, subd. (a)(3), 15091.) Based on substantial evidence in the whole record of this proceeding, the Agency finds that implementation of the Project will not result in any significant cumulative impacts in the following areas and that these impact areas therefore do not require mitigation.

a. Land Use

Impact 4-1: Cumulative impacts pertaining to land use issues, and particularly, loss of timberland due to vineyard development

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project will replace the existing second-growth timber and grasslands with a vineyard and 151-acre preserve area. The Project is consistent with the types of uses (agricultural) allowed on the site by the Sonoma County General Plan and has no significant impacts associated with the vineyard land use that cannot be avoided or lessened to a less-than-significant level with mitigation. No old-growth forest stands exist on the site, and two individual large trees located on the property will be preserved and protected. CAL FIRE thus finds that the Project's incremental contribution impacts pertaining to land use issues is not cumulatively considerable, resulting in a *less-than-significant* impact. (Draft EIR, pp. 4-6 - 4-12.)

b. Air Quality

Impact 4-2: Cumulative impacts to regional air quality

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project site is located within the Sonoma Coast/Gualala Basin Planning Area, which is the geographic area of inquiry for purposes of assessing the Project's cumulative impacts to regional air quality. The area is generally free of pollutants due to prevailing winds and topography. Operation of the Project would not result in any substantial adverse effects to air quality. CAL FIRE thus finds that the

Project's incremental contribution to air quality impacts is not cumulatively considerable and would result in a *less-than-significant* cumulative impact to regional air quality. (Draft EIR, p. 4-12.)

Impact 4-3: Cumulative contribution to global climate change

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Lead agencies have the discretion to determine the appropriate method of evaluating greenhouse gas emissions, based to the extent possible on scientific and factual data. (CEQA Guidelines, § 15064.4, subd. (a).) The Agency may rely on a qualitative analysis or performance-based standards, or prepare a quantitative analysis based on a model or methodology chosen by the Agency, so long as that choice is supported by substantial evidence. (CEQA Guidelines, § 15064.4, subd. (a)(1), (2).) For this Project, Greenhouse gas sequestration emissions (both short-term and long-term) attributable to Project implementation were assessed using the GHG Calculator. This analysis looks at whether Project impacts of greenhouse gas emissions are significant to the environment, considering (1) the extent that the Project either increases or decreases greenhouse gas emissions by comparing the current environmental setting to the proposed Project; (2) whether the anticipated greenhouse gas emissions associated with the Project exceed a threshold of significance set by the Agency and considered applicable to the Project; and (3) the Project's compliance with all rules, regulations, requirements, or law concerning control of greenhouse gas emissions. (CEQA Guidelines, § 15064.4, subd. (b).)

The majority of Project CO₂ emissions will be attributable to the combustion of fossil fuels in motor vehicles during project construction and ongoing vineyard management and conversion of forest to vineyard. These emissions are quantified in the EIR and are expected to be lower than the amount of carbon emissions that will continue to be sequestered through permanent preservation of the forested set aside areas. In the context of statewide, nationwide, or global emissions, and considering the carbon sequestration that will continue to occur once the vineyards are planted, CAL FIRE finds that the Project's incremental contribution to global climate change would not be cumulatively considerable, and the impact is *less-than-significant*. (RDraft EIR, pp. 4-1 – 4.22.)

c. Biological Resources

Impact 4-4: Cumulative impacts to special status plants and wildlife

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Mitigation measures have been designed to reduce Project impacts to special-status plants and animals to a less-than-significant level. The Project will result in “no net loss” of wetlands, will establish preserves for special-status plants, will not infringe on waterways, and will avoid adverse impacts to special-status species through the implementation of required mitigation. Project-related effects to wildlife corridors will be avoided or minimized by incorporation of measures such as fencing of individual vineyard blocks and designation of a preserve area around Patchett Creek. CAL FIRE thus finds that the Project’s incremental contribution to impacts to special-status plants and wildlife would not be cumulatively considerable, resulting in a *less-than-significant* cumulative impact. (Draft EIR, pp. 4-17 – 4-18.)

Impact 4-5: Cumulative impacts to fisheries within the Gualala River watershed

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The direct factors that continue to limit the distribution and abundance of steelhead trout and coho salmon in the Gualala watershed, including reduced flow and increased sediment inputs and water temperature, result predominately from the legacy of historic, improperly conducted land use practices. Present-day timber harvesting and road construction activities are subject to the water quality protection measures incorporated into the California Forest Practice Rules, while vineyards within Sonoma County are required to comply with the County Vineyard Sediment and Erosion Control Act (“VESCO”) (see Impact 3.2-4, above).

To ensure that the Project does not result in adverse effects to fisheries, it has been designed to ensure that the Project results in no net increase, and in fact is anticipated to result in a net decrease, in sedimentation. In addition, water quality will be monitored to ensure that the estimated net decrease in sedimentation occurs. The Project has the potential to enhance downstream conditions by reducing erosion and increasing summer base flow. The proposed project would not only avoid adverse impacts to fisheries, but could also result in beneficial impacts related to sedimentation and summer base flow. CAL FIRE thus finds that the Project’s incremental contribution to impacts to fisheries in the Gualala River watershed would not be cumulatively considerable, resulting in a *less-than-significant* impact. (Draft EIR, pp. 4-18 – 4-19.)

d. Cultural Resources

Impact 4-6: Cumulative impacts to cultural and paleontological resources

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Past land use practices have adversely affected the integrity of paleontological and archeological sites throughout Sonoma County and California. The site has been extensively surveyed and resources found on the site will be preserved and protected. There exists the potential, however, for undiscovered archeological or paleontological resources on the Project site, which could contain information pertinent to the general understanding of the prehistoric past of the region. Sonoma County is the geographic area of inquiry for purposes of assessing the project's cumulative impacts to cultural and paleontological resources. While cumulative development under the Sonoma County General Plan could have a significant impact on cultural and paleontological resources, the recording and preservation of significant cultural and paleontological resources within the Project area, as identified in the adopted mitigation measures, will reduce Project impacts to a less-than-significant level. CAL FIRE thus finds that the Project's incremental contribution to this impact would not be cumulatively considerable, and the Project therefore would have a *less-than-significant* effect. (Draft EIR, pp. 4-19 - 4-20.)

e. Geology

Impact 4-7: Cumulative geologic and seismic impacts

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project would not significantly increase the number of people and structures that could be exposed to potential effects related to seismic hazards. Although the vineyard will employ manual labor crews for up to three or four months per year on a seasonal basis, the vineyard will not be open to the public. In addition, construction of new structures will be limited to the 2/3-acre corporation yard area on the site. As required by Sonoma County, all structures will be constructed to UBC standards.

In addition, potentially adverse environmental effects associated with seismic hazards, geologic or soils constraints, and topographic alteration are usually site-specific and generally will not combine with similar effects that could occur with other projects in the Annapolis area. All projects proposed in the area will be required to comply with the UBC and other applicable safety regulations. Consequently, the Project would generally not be affected by, nor would it affect, other development approved in the vicinity. In addition, the EIR addresses cumulative impacts related to sedimentation. Implementation of best management practices ("BMPs") and mitigation that requires annual inspections and permanent erosion measures will ensure that adverse impacts related to increased sedimentation do not occur. CAL FIRE thus finds that the incremental contribution of the Project to impacts relating to geology and soils is not cumulatively considerable, and as such the impacts are *less-than-significant*. (Draft EIR, pp. 4-20 – 4-21.)

f. Hydrology And Water Quality

Impact 4-8: Cumulative impacts relating to water yield, peak flows, and sedimentation

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Gualala River watershed is the geographic area of inquiry for purposes of assessing the Project's cumulative impacts related to hydrology and water quality. With many vineyard development projects occurring in the Annapolis area, there is a potential for cumulative effects of vineyards within a given watershed. A total maximum daily load ("TMDL") has been completed for the Gualala River to address the sediment impairment as a result of excessive siltation. Currently, vineyards exist proximal to the proposed vineyard development site. A significant potential exists for cumulative watershed impacts if the entire area is converted to vineyards. While one vineyard may not contribute much sediment to a stream, the cumulative effect of a small amount of sediment per vineyard could translate to more substantial sediment impacts to downstream water bodies.

The EIR analyzed peak flows in relation to the small drainages on the site, for the Patchett Creek watershed, and the Wheatfield Fork Gualala River. These analyses show that the potential magnitude of peak flow increases is insignificant. Likewise, the EIR analyzed the Project's potential contributions of sediment, which are projected to be less than existing levels. Specifically, sedimentation is estimated to decrease by 10 to 21 tons/year. CAL FIRE finds that with the implementation of best management practices ("BMPs") and Mitigation Measures 3.7-2 (a-i) and 3.7-3 (a, b), the Project's incremental contribution would not be cumulatively considerable and the impact *less-than-significant*. (Draft EIR, pp. 4-21 – 4-22.)

g. Hazards

Impact 4-9: Cumulative impacts related to hazards

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Impacts associated with hazardous materials are site-specific and generally do not affect or are not affected by cumulative development. Cumulative effects could be of concern if the Project were, for example, part of a larger development in which industrial processes that would use hazardous materials were proposed. Such is not the case with this Project, however, and project-specific impacts were found to be less-than-significant with the implementation of the recommended mitigation measures.

In addition, development in the surrounding area will be subject to the same federal, state, and local hazardous materials management requirements as the proposed Project, which will minimize potential risks associated with increased hazardous materials use in the community, including potential effects, if any, on the proposed Project. CAL FIRE thus finds that the Project's incremental contribution to this impact is not cumulatively considerable and the impact is *less-than-significant*. (Draft EIR, pp. 4-22 – 4-23.)

h. Transportation and Circulation

Impact 4-10: Cumulative (Year 2025) traffic impacts to the study intersections and roadway segments from vineyard operations

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Implementation of the Project and the associated incremental contribution of traffic trips to the surrounding roadway network in the cumulative scenario will not be cumulatively considerable. Long-term Project-associated degradation of LOS at study area intersections and on study area roadway segments is projected to be minimal and unnoticeable to the average driver. CAL FIRE thus finds that the Project's incremental contribution to this impact is not cumulatively considerable and the cumulative impact to study area intersections and roadway segments is *less-than-significant*. (Draft EIR, pp. 4-23 – 4-29.)

i. Noise

Impact 4-11: Cumulative impacts from project-generated traffic noise

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: The Project will increase traffic on the existing roadway network in the Annapolis area. Project-generated traffic is expected to result in traffic noise level increases over cumulative no-project levels of approximately 1.5 dB. A substantial increase in traffic noise levels is defined as 5 dB. Due to the relatively small number of trips predicted to be generated by the Project when compared to no-project traffic volumes, traffic noise level increases are predicted to be insignificant on all segments of the local roadway network. CAL FIRE thus finds that the Project's incremental contribution to traffic noise would not be cumulatively considerable, and the impact is *less-than-significant*. (Draft EIR, p. 4-30.)

Impact 4-12: Cumulative operational noise impacts

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: With the exception of periodic maintenance and two to three weeks of harvesting per year, vineyards are not substantial noise-producing uses, and noise generated by such uses is highly localized. Potential localized noise impacts were analyzed using very conservative assumptions. It is unlikely that noise generated by use of the corporation yard, routine maintenance, or seasonal harvesting will appreciably combine with noise generated on neighboring or distant properties to create a significant cumulative noise level increase, and expected noise levels from the Project have been shown to comply with Sonoma County General Plan noise standards, which will be confirmed through monitoring as set forth in Mitigation Measure 3.10-3(b). CAL FIRE thus finds that the Project's incremental contribution to this impact is not cumulatively considerable, and the impact is *less- than-significant*. (Draft EIR, p. 4-30.)

j. Aesthetics

Impact 4-13: Cumulative impacts to the visual character of the region from the conversion of timberland to vineyard rows

Finding: Under CEQA, no mitigation measures are required for impacts that are less-than-significant. (Pub. Resources Code, § 21002; CEQA Guidelines § 15126.4, subd. (a)(3), 15091.)

Discussion: Trees, grasslands, and forested areas are typically considered aesthetically pleasing visual resources. Once a timber conversion occurs, the forested visual character of a site (which also includes substantial areas of grassland) is, for practical purposes, permanently lost. The conversion of forest and grasslands to vineyards also may result in the temporary introduction of additional minor amounts of light and glare at night where none previously existed during grape harvesting season. Enjoyment of forest and grassland scenery as opposed to vineyard scenery, which also can be considered aesthetically pleasing, is subjective and a matter of personal preference. The Project is not located in any designated scenic area. CAL FIRE thus finds that the Project's incremental contribution to this impact is not cumulatively considerable and the impact is *less-than-significant*. (Draft EIR, pp. 4-30 – 4-31.)

III. SIGNIFICANT OR POTENTIALLY SIGNIFICANT IMPACTS THAT CAN BE AVOIDED OR REDUCED TO A LESS-THAN-SIGNIFICANT LEVEL

a. Air Quality

Impact 3.3-1: Air quality impacts related to site preparation activities such as logging, grading, and excavation

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: While the Project would not result in the construction of a new development, site preparation activities have the potential to generate dust. Although the site is located in a rural area with few receptors, the generation of dust by the Project would be considered a *potentially significant* impact. (Draft EIR, pp. 3.3-10 – 3.3-11.)

Mitigation Measure 3.3-1: Implementation of identified measures would reduce site preparation impacts of the Project to a *less-than-significant* level by controlling the amount of dust and smoke generated. (Draft EIR, pp. 3.3-10 – 3.3-12.)

b. Biological Resources

Impact 3.4-1: Impacts to thin-lobed horkelia (*Horkelia tenuiloba*)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Small numbers of thin-lobed horkelia could be impacted by Project activities such as earth-moving/grading activity that may kill individual plants, and earth-moving/grading activity that may alter the hydrology of the Project site. These activities would be regarded as *potentially significant* adverse impacts. (Draft EIR, pp. 3.4-124 – 3.4-125.)

Mitigation Measure 3.4-1: Implementation of identified measures would reduce the impact to a *less-than-significant* level by ensuring the heightened level of protection and compensation typically provided for impacted rare plants, even though thin-lobed horkelia is not listed under either the state or federal Endangered Species Act. (Draft EIR, pp. 3.4-124 – 3.4-126.)

Impact 3.4-2: Impacts to Annapolis manzanita (*Arctostaphylos manzanita x A. stanfordiana*)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Annapolis manzanita is a hybrid manzanita unique to the Annapolis area. Two Annapolis manzanita populations occur on the Project site. Annapolis manzanita does not have any state or federal status, nor is it listed by CNPS. However, because of the uniqueness of this population, Dr. Tom Parker and Mr. Michael Vasey of San Francisco State University recommended that the Project include incorporation of protection measures for Annapolis manzanita until further studies have been conducted. Taking into account the local or unique rarity of a species, any impacts to Annapolis Manzanita are considered *potentially significant*. (Draft EIR, p. 3.4-126.)

Mitigation Measure 3.4-2: Implementation of identified measures would reduce the impact to a *less-than-significant* level by ensuring the heightened level of protection and compensation typically provided for impacted rare plants, even though Annapolis manzanita is not listed under either the state or federal Endangered Species Act. (Draft EIR, pp. 3.4-126 – 3.4-127.)

Impact 3.4-4 - Impacts to the northern spotted owl (*Strix occidentalis caurina*)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: Since northern spotted owl detections have occurred in the region and in an isolated occurrence in the vicinity of the Project site, and this species thus could (although is not likely to) move onto the Project site in the future, impacts to the northern spotted owl are regarded as *potentially significant*. (Draft EIR, pp. 3.4-128 – 3.4-129.)

Mitigation Measure 3.4-4: Implementation of identified measures will reduce impacts to this species to levels regarded as *less-than-significant* by ensuring that the Project would not result in take of the northern spotted owl. (Draft EIR, pp. 3.4-128 - 3.4-133.)

Impact 3.4-5: Impacts to nesting raptors

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Suitable nesting habitat for western screech owl, great horned owl, barn owl, Cooper’s hawk, sharp-shinned hawk, red-shouldered hawk, and red-tailed hawk occurs on the Project site. All are protected under the Migratory Bird Treaty Act (50 CFR 10.13) and their nest, eggs, and young are protected under California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800. Additionally, the Cooper’s hawk and sharp-shinned hawk are California species of special concern. Any substantial Project-related impacts to these species would be considered a significant adverse impact. Potential impacts to these species include disturbance to nesting birds, and possibly death of adults and/or young. No nesting raptors (birds of prey) have been identified on the Project site during cursory raptor nesting surveys. Four raptors including the barn owl, red-tailed hawk, western screech owl, and American kestrel have been identified onsite. All birds are mobile species and can readily change nest sites from year to year. As such, impacts to nesting raptors are regarded as *potentially significant*. (Draft EIR, p. 3.4-133.)

Mitigation Measure 3.4-5: Implementation of identified measures will reduce impacts to nesting raptors to levels regarded as *less-than-significant* by ensuring that the Project would not result in take of nesting raptors. (Draft EIR, pp. 3.4-133 – 3.4-134.)

Impact 3.4-6: Impacts to nesting birds (general)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Most birds known from the region of the Project site are protected under the Migratory Bird Treaty Act (50 CFR 10.13). This Act prohibits “take” (i.e., direct or indirect activities that cause avian mortality including their eggs and young) of any species listed under this Act. Many passerine bird species (for example, American robins, sparrows, dark-eyed juncos) that occur in the region of the Project site could or are known to nest on the Project site. Because birds are mobile species, most would not be expected to be harmed by the Project since they would simply fly out of harm’s way. The exception occurs when birds are nesting, and the analysis in the Draft EIR conservatively regards potential impacts to nesting birds as a *potentially significant* impact. (Draft EIR, pp. 3.4-134 – 3.4-135.)

Mitigation Measure 3.4-6: Implementation of identified measures will reduce impacts to nesting birds to levels regarded as *less-than-significant* by ensuring that the Project would not result in take of nesting birds. (Draft EIR, pp. 3.4-134 – 3.4-136.)

Impact 3.4-7: Impacts to nesting yellow warblers

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: The yellow warbler (*Dendroica petechia brewsteri*) is a California species of special concern and has been observed on the Project site. Potential impacts to the yellow warbler include death to individual warblers, their eggs, and/or young. Such impacts would be regarded as *potentially significant*. (Draft EIR, p. 3.4-136.)

Mitigation Measure 3.4-7: Implementation of identified measures will reduce impacts to this species to levels regarded as *less-than-significant* by ensuring that the Project would not result in take of the yellow warbler. (Draft EIR, pp. 3.4-136 – 3.4-137.)

Impact 3.4-9: Impacts to the foothill yellow-legged frog

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Foothill yellow-legged frog exists on the Project site in a protected aquatic system along Patchett Creek that is generally inaccessible to predators. Regardless, any impact to Patchett Creek from the proposed Project could result in significant adverse impacts to the foothill yellow-legged frog. While no impacts are expected to occur to Patchett Creek, the environmental analysis conservatively regards impacts to this frog as *potentially significant*. (Draft EIR, p. 3.4-138.)

Mitigation Measure 3.4-9: Implementation of identified measures will reduce impacts to this species to levels regarded as *less-than-significant* by ensuring no significant adverse effects to Patchett Creek. (Draft EIR, pp. 3.4-138 - 3.4-139.)

Impact 3.4-10: Impacts to red-legged frog (*Northern and California red-legged frog*)

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: The Project could result in impacts to upland habitat that provides potential dispersal habitat for California red-legged frogs. No suitable breeding habitat occurs on the Project site and thus no impacts are expected to occur to red-legged frog breeding habitat. Because of the presence of suitable dispersal and aquatic habitats, impacts to the California red-legged frog are regarded as *potentially significant*. (Draft EIR, pp. 3.4-139 – 3.4-140.)

Mitigation Measure 3.4-10: Implementation of identified measures would reduce the impact to a *less-than-significant* level by ensuring that the Project would not have a substantial adverse effect on this species. (Draft EIR, pp. 3.4- 139 - 3.4-141.)

Impact 3.4-11: Sedimentation impacts to special-status salmonids

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: The Gualala River watershed is designated as Threatened and Impaired by the U.S. Environmental Protection Agency for excessive sedimentation, under Section 303(d) of the federal Clean Water Act. The ongoing sedimentation problem in the Gualala watershed is generally acknowledged to be the legacy of decades of environmentally-unsound land use practices, particularly improper logging road construction and maintenance. The result of the excessive sedimentation, in combination with other factors including inadequate stream flows, has been a severe reduction in suitable salmonid habitat in watercourses within the Gualala watershed, and corresponding decreases in populations of coho salmon (*Oncorhynchus kisutch*) and steelhead trout (*Oncorhynchus mykiss irideus*). Both of these species are federally listed as threatened by the U.S. Fish and Wildlife Service, and therefore both the fish and their habitat are protected under the Federal Endangered Species Act.

The Project has been designed with state of the art Best Management Practices (“BMPs”) that will significantly control both erosion and mobile sediment contribution to downstream environments. For example, Project sedimentation basins as designed are predicted to reduce sediment yield by 50 percent, primarily by capturing sand and fine gravel greater than 0.1 mm diameter. Finer suspended sediment that passes through the sediment basins is relatively mobile in energetic stream systems such as Patchett Creek. Most of the sediment from the Project site, following treatment in sedimentation basins, is expected to remain in the water column as the sediment is transported through Patchett Creek with relatively little deposition.

Current erosion rates in Patchett Creek are relatively low compared to other portions of the Gualala River watershed, and the magnitude of potential erosion from the Project will not be significant in relation to both existing and natural background rates. Furthermore, to the extent that the Project will reduce net sedimentation of downstream waterways, the project could be beneficial to habitat quality. Based on the analytical studies conducted on hydrology and sediment control, the Project actually may improve water quality conditions above existing conditions by reducing erosion and increasing summer baseflow through an increase in groundwater recharge. Any increase in summer baseflows will help maintain cooler water and enhance habitat which is beneficial to steelhead at this time of year. In addition, the proposed timber harvesting and vineyard development activities incorporate numerous erosion control measures as part of the design of the project, as required by the California Forest Practice Rules and the Sonoma County Vineyard Erosion and Sediment Control Ordinance. Should the Project design features intended to reduce sedimentation not achieve the anticipated reductions in sedimentation, however, a *potentially significant* impact could occur. (Draft EIR, pp. 3.142 – 3.143.)

Mitigation Measure 3.4-11: Implementation identified measures would reduce the impact to a *less-than-significant* level by ensuring no net increase in sedimentation over existing baseline levels. (Draft EIR, pp. 3.4-142 – 3.4-143.)

Impact 3.4-15: Impacts to waters of the United States and State

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: The Project will result in impacts to areas that are within the Corps' jurisdiction pursuant to Section 404 of the Clean Water Act. Similarly, the Project will impact areas that are within the Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Sections 401 of the Clean Water Act and the Porter-Cologne Water Quality Act. In total, 0.308-acre of waters of the United States would be impacted by the proposed Project. Of this amount, 0.296-acre is "seasonal wetland" and 0.012-acre is "other waters." Of the 3.35 acres of waters of the United States on the site, 3.04 acres (91 percent) will be avoided by the Project. All avoided waters of the U.S. will be protected in perpetuity in stream buffers or deed-restricted preserves established as part of the Project.

Similarly, in total 0.414-acre of waters of the State would be impacted by the Project. The additional acreage over and above total impacts to waters of the U.S. consist of impacts that would occur to "isolated wetlands" that are not under the jurisdiction of the Corps, rather are only under the jurisdiction of the RWQCB. Of the 3.610 acres of waters of the State on the Project site, 3.20 acres (89 percent) will be avoided and protected in perpetuity in stream buffers or deed-restricted preserves established as part of the Project.

The total impact to jurisdictional waters of the State and U.S. will be to 0.414-acre, which is regarded as *potentially significant*. (Draft EIR, pp. 3.4-147 – 3.4-148.)

Mitigation Measure 3.4-15: Implementation of identified measures would reduce the impact to a *less-than-significant* level by ensuring no net loss of wetlands and other jurisdictional waters. (Draft EIR, pp. 3.4-147 – 3.4-151.)

Impact 3.4-16: Impacts to streamside conservation areas

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: The Project is adjacent to the Sonoma County-designated Patchett Creek Riparian Corridor, which traverses the east side of the Project site. Numerous other ephemeral streams also drain the Project site. The County has identified the goal of

protecting the habitat functions and values of riparian corridors and ephemeral drainages, including those on the Project site. While the Project would establish streamside conservation areas, a long-term plan for the maintenance and protection of the conservation areas has not been completed. The possibility therefore exists that a *potentially significant* impact could result from future activities in the conservation areas. (Draft EIR, pp. 3.4-151 – 3.4-152.)

Mitigation Measure 3.4-16: Implementation of identified measures would reduce the impact to a *less-than-significant* level by ensuring no substantial adverse impacts to streamside conservation areas. (Draft EIR, pp. 3.4-151 – 3.4-154.)

c. Cultural Resources

Impact 3.5-1: Impacts to paleontological resources

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: If fossils were encountered during Project implementation, they would be deemed significant for both scientific study and overall geologic history of this area. Because fossil-bearing geological strata underlie the Project site, and currently unidentified, scientifically significant fossil deposits may be damaged or destroyed during Project construction activities, the impact to paleontological resources would be considered *potentially significant*. (RDraft EIR, pp. 3.5-23 – 3.5-24.)

Mitigation Measure 3.5-1: Implementation of identified measures would reduce project impacts to a *less-than-significant* level by ensuring that any paleontological resources uncovered during earthmoving operations would be properly preserved and/or documented. (RDraft EIR, pp. 3.5-23 – 3.5-25.)

Impact 3.5-2: Impacts to prehistoric cultural resources

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Some public commentary on the Project asserted that the site is the location of a former Kashia Band of Pomo Indians village. Chapter 3.5 of the RDraft EIR and Response to Comment 13-5 of the Final EIR explain that three ethnographic sites (named villages) have been reported near Annapolis and, therefore, in the vicinity of the Project area. Based on expert descriptions of these site locations, all three of these named villages appear to be outside the Project area. Additionally, tribal scholar Otis Parrish has mapped several sites in the Kashia Pomo territory, and he places sites nearby, but outside of, the Project area. In short, the area has been extensively studied, and those

studies show it is inaccurate to assert that the Project site is the location of a former Kashia Band of Pomo Indians Village.

Some public commentary on the Project also included claims that burial grounds have been or are likely to be discovered on the Project site, which experts who have studied the site have determined to be erroneous. As explained in the Final EIR for the Project, particularly in Response to Comment 13-5, extensive archaeological surveys have been conducted on the Project site by highly qualified professional archaeologists. None of the cultural resources identified on the Project site are known to contain human remains. Further, because all of the archaeological sites identified on the property have been excluded from development, the potential for disturbing human remains is extremely low. The cultural resources analyses for the Project acknowledge the importance of the area for the Kashia Band of Pomo Indians and CAL FIRE has consulted with the Tribe accordingly, as reflected in the series of letters written to the Tribe for the THP and by tribal participation in the cultural resources investigations for the Project.

Although the known significant archaeological sites within the Project area are to be avoided during Project implementation, other portions of the Project area could contain additional significant prehistoric sites that have yet to be discovered. Ground-related construction activities could result in the discovery of presently unidentified cultural resources. Project implementation therefore could result in a *potentially significant* impact to unknown prehistoric cultural resources. (RDraft EIR, pp. 3.5-25-3.5-31.)

Mitigation Measure 3.5-2: Implementation of identified measures would reduce potential impacts to a *less-than-significant* level by ensuring that the Project will not result in any substantial damage to, or destruction of, prehistoric cultural resources. (RDraft EIR, pp. 3.5-25 – 3.5-42.)

Impact 3.5-3: Impacts to historic resources

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Historically significant resources have been identified in the Project area, and the potential exists that unidentified historical resources may be discovered during Project implementation. Project impacts to historic resources therefore are considered *potentially significant*. (RDraft EIR, pp. 3.5-42 – 3.5-45.)

Mitigation Measure 3.5-3: Implementation of identified measures would reduce Project impacts to a *less-than-significant* level by ensuring that the Project will not result in any substantial damage to, or destruction of, historic resources. (RDraft EIR, pp. 3.5-42 – 3.5-47.)

d. Geology

Impact 3.6-2: Impact of seismic activity on proposed reservoir

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Expansion of the reservoir area could have a *potentially significant* impact if site-specific design and construction measures are not implemented. (Draft EIR, pp. 3.6-13 – 3.6-14.)

Mitigation Measure 3.6-2: Implementation of identified measures would reduce Project impacts to a *less-than-significant* level by ensuring that site-specific design and construction measures are implemented. (Draft EIR, pp. 3.6-13 – 3.6-14.)

Impact 3.6-4: Increased soil erosion during and after construction from conversion and grading activities

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Grading and subsequent potential for erosion of topsoil could have adverse impacts to downstream water quality in addition to site productivity. Project impacts to downstream water quality are considered *potentially significant*. (Draft EIR, pp. 3.6-15 – 3.6-16.)

Mitigation Measure 3.6-4: Implementation of identified measures would reduce this impact to a *less-than-significant* level by ensuring no substantial erosion or sedimentation in connection with timber harvest activities. (Draft EIR, pp. 3.6-15 – 3.6-16.)

e. Hydrology and Water Quality

Impact 3.7-2: Impacts to surface water quality from timber harvest and vineyard construction-related erosion and sedimentation

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: As part of the permitting process, a Storm Water Pollution Prevention Plan (“SWPPP”) would be developed and implemented. The SWPPP requires comprehensive assessment and planning for minimizing risk of sediment export from the

work areas. After best management practices (“BMPs”) are in place, supplemental stockpiled materials would be maintained onsite for use in emergency situations, should they arise. Nevertheless, construction activities create substantial site disturbance, and removal and replacement of vegetative cover creates potential for accelerated erosion. Some potential exists for erosion to occur in unexpected locations or at unexpected rates, particularly in the first winter after construction. This impact therefore is considered *potentially significant*. (Draft EIR, pp. 3.7-53 – 3.7-55.)

Mitigation Measure 3.7-2: Implementation of identified measures would reduce Project impacts to a *less-than-significant* level by ensuring that the Project will not result in any substantial erosion or sedimentation associated with construction activities. (Draft EIR, pp. 3.7-53 – 3.7-61.)

Impact 3.7-3: Impacts to surface water quality from vineyard-related erosion and sedimentation

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: Compliance with the best management practices (“BMPs”) recommended in the Erosion Control Plan would help ensure that the Project would not substantially degrade surface water quality as a result of vineyard development activities. Without appropriate monitoring of post-project sedimentation rates in the field, however, a *potentially significant* impact could occur if sedimentation increases above the rates estimated in the Project analyses. (Draft EIR, pp. 3.7-61 – 3.7-73.)

Mitigation Measure 3.7-3: Implementation of identified measures would reduce Project impacts to a *less-than-significant* level by ensuring no net increase in sediment yield from the Project site. (Draft EIR, pp. 3.7-61 – 3.7-77.)

Impact 3.7-4: Water quality impacts pertaining to chemical contamination from timber harvest and vineyard operations

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: The use of equipment-related fuels, lubricants, and coolant would be necessary components of the Project. In addition, agricultural chemicals may be applied during vineyard operations if such action is necessary. The use of such materials on the site would result in the potential for water contamination if proper handling procedures were not observed. The EIR provided detailed analysis of this issue, which shows that the identified management and application methods would provide adequate mitigation to reduce the potential adverse chemical contamination-induced water quality impacts. Should an accident occur during the movement or application of agricultural chemicals,

however, the possibility exists that a *potentially significant* impact to water quality could occur. (Draft EIR, pp. 3.7-77 – 3.7-80.)

Mitigation Measure 3.7-4: Implementation of identified measures would reduce Project impacts to a *less-than-significant* level by protecting water quality through proper response to accidental chemical spills. (Draft EIR, pp. 3.7-77 – 3.7-80.)

f. Hazards

Impact 3.8-1: Safety-related impacts pertaining to the presence of hazardous chemicals associated with the old sawmill site

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: Exposure to friable asbestos and lead particles, if present in the deteriorated structures on the Project site, could prove hazardous to construction workers during demolition activities. Additionally, the presence of historical chemicals and garbage buried on the site could result in worker exposure to hazardous chemicals of an undetermined nature. The impact of hazardous chemicals on the Project site therefore is considered *potentially significant*. (Draft EIR, pp. 3.8-9 – 3.8-10.)

Mitigation Measure 3.8-1: Implementation of identified measures would mitigate potential impacts to a *less-than-significant* level by ensuring that any hazardous materials on the site would be properly identified, disposed of and/or remediated. (Draft EIR, pp. 3.8-9 – 3.8-11.)

Impact 3.8-2: Safety-related impacts pertaining to the presence of hazardous chemicals associated with past illegal activities on the site

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: The Project site contains numerous piles of historic and recent garbage and other debris, including several illegally dumped automobiles. Furthermore, neighbors have reported additional potentially hazardous debris buried in various locations on the site. While it is unlikely that the majority of this refuse constitutes a hazardous materials threat to workers on the Project site, it is possible that over time, the dumped vehicles have leaked lubricants, fuel, coolant, or other fluids into the ground. During Project construction, if work crews were to come into contact with these materials, injury could result. The impact would be considered *potentially significant*. (Draft EIR, p. 3.8-11.)

Mitigation Measure 3.8-2: Implementation of identified measures would mitigate potential impacts to a *less-than-significant* level by ensuring that any hazardous materials on the site would be properly identified, disposed of and/or remediated. (Draft EIR, p. 3.8-11.)

Impact 3.8-3: Impacts relating to the past use of agricultural chemicals on the Project site

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: Impacts pertaining to agricultural chemical applications in past decades are considered *potentially significant*. (Draft EIR, p. 3.8-12.)

Mitigation Measure 3.8-3: Implementation of identified measures would mitigate potential impacts to a *less-than-significant* level by ensuring that any hazardous materials on the site would be properly identified, disposed of and/or remediated. (Draft EIR, p. 3.8-12.)

Impact 3.8-4: Impacts relating to the potential use of agricultural chemicals during Project operations

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: The Project will minimize the use of pesticides and herbicides through the use of Integrated Pest Management (“IPM”), which refers to a broad array of practices focusing on long-term prevention or suppression of pest problems with minimum impact on human health, the environment, or non-target organisms. IPM practices may include such methods as selection of resistant planting stock; modification of planting schedules and timing; sound irrigation and organic waste disposal procedures; and use of traps, mulches, cover crops, non-toxic spray oils, and natural pest enemies (biological control). The University of California has developed IPM practices specific to grape production. The Project also will be enrolled in the Fish Friendly Farming Program and the California Association of Winegrape Growers Sustainable Winegrowing Program. One of the primary goals of the Fish Friendly Farms program is to limit chemical use in order to reduce impacts on fish species. Through use of IPM practices and compliance with all current pesticide and herbicide application regulations, the risk to people or biological resources from the application of agricultural chemicals during vineyard operations would not be adverse. Should an accident cause the unregulated release of agricultural chemicals into the environment, however, a *potentially significant* impact could occur. (Draft EIR, pp. 3.8-12 – 3.8-27.)

Mitigation Measure 3.8-4: Implementation of identified measures would mitigate potential impacts to a *less-than-significant* level by ensuring proper response to accidental chemical spills. (Draft EIR, pp. 3.87-12 – 3.8-27.)

Impact 3.8-5: Impacts from wildfire hazards

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: Because CAL FIRE considers the Project site to be a moderate-to-high fire hazard area, the impact from wildfire hazards, including in relation to employees associated with the Project, is considered *potentially significant*. (Draft EIR, p. 3.8-27.)

Mitigation Measure 3.8-5: Implementation of identified measures would mitigate potential impacts to a *less-than-significant* level by providing an appropriate fire hazard reduction zone. (Draft EIR, pp. 3.8-27 - 3.8-28.)

g. Transportation and Circulation

Impact 3.9-2: Short-term traffic impacts due to timber harvesting and vineyard development

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: The Project would result in short-term traffic increases on local roadways during the timber harvesting and vineyard development activities. Although the routes in the vicinity are and have historically been used for logging, the introduction of additional logging trucks to the Project area would have a *potentially significant* impact on existing (short-term) traffic conditions. (Draft EIR, pp. 3.9-17 – 3.9-18.)

Mitigation Measure 3.9-2: Implementation of identified measures would reduce the above impact to a *less-than-significant* level by minimizing the effect of logging and construction traffic on local roadways. (Draft EIR, pp. 3.9-17 – 3.9-18.)

h. Noise

Impact 3.10-1: Short-term construction noise impacts

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Description: During the construction phases of the Project, noise from vineyard development activities would add to the noise environment in the immediate project vicinity. Earthmoving and other site preparation activities would be temporary and would be anticipated to take place during daytime working hours. Should construction activities occur outside of daytime working hours, however, a *potentially significant* impact related to noise generation could occur. (Draft EIR, p. 3.10-7.)

Mitigation Measure 3.10-1: Implementation of identified measures would reduce short-term construction noise impacts to a *less-than-significant level* by ensuring that such impacts do not take place outside of daytime working hours. (Draft EIR, pp. 3.10-7 – 3.10-8.)

Impact 3.10-3: Noise impacts related to operation of the vineyard

Finding: Changes or alterations have been required in, or incorporated into, the Project that will avoid the potentially significant environmental effect identified in the Draft EIR.

Discussion: Activities involved with the operation of the Fairfax Vineyard would vary by season, but would not be extensive outside the harvesting and pruning periods. Because nighttime mechanical harvesting operations within 500 feet of existing noise-sensitive land uses could exceed Sonoma County noise standards and significantly exceed existing background noise levels, this impact is considered *potentially significant*. (Draft EIR, pp. 3.10-8 – 3.10-9.) Information provided in response to public comments elaborates on the issue of operational noise by providing additional noise data. The technical memorandum was prepared by a highly qualified expert and supplies additional requested details regarding potential noise levels in relation to the Starcross Community. This review confirms the validity of the representation in the Draft EIR that operational noise will be mitigated to an insignificant level. Data in both the Draft and Final EIRs demonstrate that Project noise will be mitigated to levels within established thresholds, including those set forth in the Sonoma County General Plan Noise Element. As a conservative measure to address unanticipated worst-case conditions, the mitigation identified in the Draft EIR has been amplified to include monitoring of operational noise from the property line, residence, and chapel area of the Starcross Community during the first harvest season to verify and ensure that the County's noise standards are satisfied.

Mitigation Measure 3.10-3: Implementation of identified measures and the procedures identified to implement and monitor them would reduce potential impacts to a *less-than-significant level* by ensuring that noise levels comply with Sonoma County General Plan standards. (Draft EIR, pp. 3.10-8 – 3.10-10.)

IV. MITIGATION MEASURES AND PROJECT MODIFICATIONS PROPOSED BY COMMENTERS

Several commenters on the Draft EIR and RDraft EIR suggested additional mitigation measures and/or modifications to the measures recommended in the Draft EIR

and RDraft EIR. In considering specific recommendations from commenters, the Agency has been cognizant of its legal obligation under CEQA to substantially lessen or avoid significant environmental effects to the extent feasible. CAL FIRE recognizes, moreover, that comments frequently offer thoughtful suggestions regarding how a commenter believes that a particular mitigation measure can be modified, or perhaps changed significantly, in order to more effectively, in the commenter's eyes, reduce the severity of environmental effects. The Agency is also cognizant, however, that the mitigation measures recommended in the Draft EIR and RDraft EIR reflect the professional judgment and experience of the Agency's expert staff and environmental consultants. The Agency therefore believes that these recommendations should not be lightly altered. In considering commenters' suggested changes or additions to the mitigation measures as set forth in the Draft EIR and RDraft EIR, the Agency, in determining whether to accept such suggestions, either in whole or in part, considered the following factors, among others:

- (i) Whether the suggestion relates to a significant and unavoidable environmental effect of the Project, or instead relates to an effect that can already be mitigated to less than significant levels by proposed mitigation measures in the Draft EIR and RDraft EIR;
- (ii) Whether the proposed mitigation represents a clear improvement, from an environmental standpoint, over the proposed mitigation measures in the Draft EIR and RDraft EIR;
- (iii) Whether the proposal may have significant environmental effects, other than the impact the proposal is designed to address, such that the proposal is environmentally undesirable as a whole;
- (iv) Whether the suggestion is sufficiently clear as to be easily understood by those who will implement the mitigation as finally adopted;
- (v) Whether the suggestion might be too inflexible to allow for pragmatic implementation;
- (vi) Whether the suggestions are feasible from an economic, technical, legal, or other standpoint; and
- (vii) Whether the proposal is consistent with the Project objectives.

Notably, for this Project, no significant and unavoidable impacts were identified. Where feasible, the mitigation measures were revised or clarified in response to comments. (See Final EIR, Chapters 2 and 3, and Erratum.) Staff also initiated changes to the text of the Draft EIR, including mitigation measures. (See Final EIR, Chapter 2.) In some cases, suggested measures are not feasible and/or lack the requisite nexus and rough proportionality to the anticipated significant adverse impacts of the Project on the

physical environment. The reasons for rejecting mitigation proposed by commenters are explained in Chapter 3 of the Final EIR.

V. PROJECT ALTERNATIVES

CEQA requires a lead agency to evaluate, in its findings, feasible and environmentally superior alternatives to a project only to the extent that the project will cause unavoidable significant environmental effects. (*Citizens for Quality Growth v. City of Mount Shasta* (1988) 198 Cal.App.3d 433, 443-445; see also Pub. Resources Code, § 21002.) As summarized in the preceding discussion, every significant or potentially significant effect of the Project will be avoided or mitigated to a less-than-significant level. Where, as here, a significant impact can be mitigated to an acceptable (less-than-significant) level solely by the adoption and implementation of mitigation measures, the agency, in drafting findings, has no obligation to consider the feasibility of environmentally superior alternatives, even if their impacts would be less severe than those of the proposed project as mitigated. (*Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.)

Based on the impacts identified in the Final EIR and other reasons summarized below, and as supported by substantial evidence in the record, CAL FIRE finds that approval and implementation of the Project as proposed is the most desirable, feasible, and appropriate action and hereby rejects the other alternatives and other combinations and/or variations of alternatives as infeasible based on consideration of the relevant factors set forth in CEQA Guidelines section 15126.6, subdivision (f). (See also CEQA Guidelines, § 15091, subd. (a)(3).)

The environmental analysis of the Project shows that it could result in several potentially significant and/or significant environmental impacts that will be reduced to a less-than-significant level through Project design and mitigation measures. As designed and mitigated, the Project will cause no significant and unavoidable environmental impacts. Thus, CAL FIRE is under no obligation to make findings with respect to Project alternatives. For purposes of full disclosure, however, the Agency includes the following discussion of Project alternatives in support of its selection of the proposed Project. In so doing, CAL FIRE certifies that it has independently reviewed and considered the information on alternatives provided in the Final EIR, including the information provided in comments on the Draft EIR and RDraft EIR and the responses to those comments in the Final EIR. The Final EIR's discussion and analysis of alternatives is not repeated in these findings, but the discussion and analysis of the alternatives in the Final EIR is incorporated in these findings by reference.

A. Selecting the Range of Alternatives

Pursuant to section 15126.6 of the CEQA Guidelines, the Project EIR examines a range of alternatives to the proposed Project. Comments received during the scoping

meeting and public comment on the Notice of Preparation of the Project EIR indicated a desire for a range of alternatives that addressed the following issues:

- An alternative that does not require timberland conversion.
- Alternative project locations in non-forested lands.
- Alternative excluding portion of the site near the Wellman property.
- An alternative reducing project size.
- An alternative that establishes conservation easements over the historical resources.

As discussed below, the Reduced Acreage Alternative would exclude the portion of the Project adjacent to the Wellman property and reduce the total conversion/development area. The Offsite Alternative addresses the possibility of locating the project on non-forested lands, which would not require a timberland conversion. All cultural and historical resources will be preserved; therefore, an alternative that specifically addresses such resources is not necessary.

B. Alternatives Considered and Rejected During Scoping Process

1. Tree-Size Restricted Conversion Area Alternative

An alternative was considered that included a timber conversion area, which was restricted to include only the smaller trees on the Project site. It was determined by a Registered Professional Forester, however, that there are not discernable concentrations of smaller trees within the Project site sufficient to contain a vineyard. During the past conversion to orchard and grazing uses, most of the timber was removed during a relatively short time period. The timber that currently occupies the site all regenerated during a similar time period, and as a result the stands of trees on the Project site are similar in age, and the difference in age is not distinct enough to create an effective boundary between older and younger trees. Due to its infeasibility, the “Tree-Size Restricted Conversion Area Alternative” was dismissed from further analysis in the EIR.

2. Complete Reservoir Capture Alternative

The “Complete Reservoir Capture Alternative” included only areas of the Project site that drained completely into the proposed reservoir, which has been designed to collect surface water from a 36-acre watershed within the Project area. This Alternative would reduce the conversion area to 36 acres. The small size of the conversion area would not be economically viable and would not adequately meet the Project objectives. This alternative therefore was dismissed from further analysis in the EIR.

C. Alternatives Evaluated in the Draft EIR

CAL FIRE finds that the range of alternatives studied in the EIR reflects a reasonable attempt to identify and evaluate various types of alternatives that potentially could reduce the proposed Project’s environmental effects, while accomplishing most if

not all of the Project objectives. CAL FIRE finds that the alternatives analysis is sufficient to inform the Agency and the public regarding the impacts of the Project and to permit a reasoned choice in deciding whether and how to approve the proposed Project. (CEQA Guidelines, § 15126.6.)

1. No Project – No Action Alternative

The No Project – No Action Alternative is discussed at pages 6-4 through 6-7 of the Draft EIR. It would include no timberland conversion, no planting of vineyards, and no construction of buildings or any associated infrastructure. The No Project – No Action Alternative would allow the continued existence of the Project site in its current state. CAL FIRE rejects the No Project – No Action Alternative, because the No Project –No Action Alternative may not be financially feasible, and will not feasibly achieve the basic Project objectives identified above. The environmental effects of this alternative are discussed in the Draft EIR at pages 6-4 through 6-7. In addition, the Project will not result in any unavoidable significant environmental effects. As such, the No Project – No Action Alternative would not avoid or substantially lessen the environmental effects of the Project. (CEQA Guidelines, § 15126.6, subd. (f).) Because all significant or potentially significant Project impacts will be fully avoided or mitigated to a less-than-significant level, the difference in impact between this alternative and the proposed Project is not substantial under CEQA. (*Ibid.*; *Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.

2. No Project - Timber Resource Management Alternative

The No Project – Timber Resource Management Alternative is discussed at pages 6-7 through 6-12 of the Draft EIR. It would not involve the planting of vineyards, construction of buildings, or any associated infrastructure. Onsite timber would be harvested in conformance with the Forest Practice Rules. While the Project proponent has not indicated a desire to engage in long-term forest management of the property if the vineyard conversion is not approved, timber harvesting would be permitted upon approval of a Timber Harvest Permit, and timber harvesting is a historic use of both the project site and surrounding properties. The No Project – Timber Resource Management Alternative was analyzed in the EIR to develop a more complete picture of the potential outcomes that may occur in the absence of the proposed Project.

CAL FIRE rejects the No Project – Timber Resource Management Alternative because the No Project – Timber Resource Management Alternative may not be financially feasible, and will not feasibly achieve the basic Project objectives identified above. In addition, the Project will not result in any unavoidable significant environmental effects. As such, the No Project – Timber Resource Management Alternative would not avoid or substantially lessen the environmental effects of the Project. (CEQA Guidelines, § 15126.6, subd. (f).) Because all significant or potentially significant Project impacts will be fully avoided or mitigated to a less-than-significant

level, the difference in impact between this alternative and the proposed Project is not substantial under CEQA. (*Ibid.*; *Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.) The environmental effects of this alternative are discussed in the Draft EIR at pages 6-7 through 6-12.

3. Offsite Alternative

The Offsite Alternative is discussed at pages 6-12 through 6-20 of the Draft EIR. It would result in the development of the Project at a location other than the site proposed. Maps displaying soils, elevations, and slopes similar to the Project site were reviewed for surrounding areas of Sonoma County to identify potential offsite locations. Sites that do not have the right soils, elevations, slopes, and solar aspects would not be suitable for achieving the Project objectives, and would not constitute feasible alternatives pursuant to CEQA. Soil maps were consulted to identify areas with the same class of soils as the proposed Project, as the Project site was specifically selected by the applicant for its abundance of Goldridge and Hugo loam soils, which are optimum for cultivation of Pinot Noir wine grapes. (See Draft EIR, Figure 6-1, Soils in Project Vicinity.) Soil type has a substantial impact on vineyard quality; therefore, location of the Project on different soil types would substantially affect the feasibility of the Project.

A specific range of elevations also is required to attain the necessary microclimate conditions for growing premium wine grapes. (Draft EIR, Figure 6-2, Elevation in Project Vicinity.) Location of the Project outside of the appropriate microclimate could result in adverse impacts to grape quality from excessive heat, or necessitate the installation of infrastructure to protect against frost damage. As excessively steep slopes cannot be converted to vineyards without substantial risk of erosion, potential offsite locations would require a less than 23-degree slope. (See Draft EIR, Figure 6-3, Slopes in Project Vicinity.)

In addition, the solar aspect must be considered to ensure that sunlight and moisture conditions are suitable for a vineyard (See Figure 6-4, Solar Aspect in Project Vicinity). The northeast to southeast solar aspect is considered ideal as this direction provides ample sun, without the excessive sun that a south or west aspect would bring, or the shade that would result from a northern aspect. In addition, the potential site must be of comparable size in order to attain most of the project objectives.

As can be seen in Figure 6-5 in the Draft EIR (Potential High Value Sites), large acreages that include three or more of the Project site characteristics are quite rare. Requiring an offsite location to include all four resource areas would even further reduce potential offsite locations. In addition, a review of aerial photographs and vineyard proposals indicates that several of the areas indicated on Figure 6-5 as potential high value alternative sites are either currently in vineyard production, proposed for vineyard production, approved for vineyard production or identified as managed timberland. Furthermore, as the willingness of the owners of such lands to sell to the Project applicant

is not known, acquiring the parcels may not in fact be possible. However, as there are lands with similar characteristics that as yet have not been developed with a vineyard, the possibility of locating the proposed project at another location exists. As can be seen in Figure 6-5 in the Draft EIR, the alternative site would likely be located in the area surrounding Annapolis, or south of the town along Annapolis Road.

CAL FIRE rejects the Offsite Alternative, because the Offsite Alternative will not feasibly achieve the basic objectives of the Project identified above. Further, alternative sites are infeasible when the proponent does not own or control them, and costs or other constraints on acquisition of those sites would interfere with timely and successful completion of the project. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 574; see CEQA Guidelines, § 15126.6, subd. (f)(1).) In addition, the Project is consistent with the applicable planning and zoning designations, and will not result in any unavoidable significant environmental effects. As such, the Offsite Alternative would not avoid or substantially lessen the environmental effects of the Project, but might instead result in significant adverse impacts in the alternative location. (CEQA Guidelines, § 15126.6, subd. (f).) Because all significant or potentially significant Project impacts will be fully avoided or mitigated to a less-than-significant level, the difference in impact between this alternative and the proposed Project is not substantial under CEQA. (*Ibid.*; *Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.) In addition, this alternative may not be financially feasible. The environmental effects of this alternative are discussed in the Draft EIR at pages 6-12 through 6-20.

4. Reduced Acreage Alternative

The Reduced Acreage Alternative is discussed at pages 6-20 through 6-24 of the Draft EIR. Similar to the proposed Project, the Reduced Acreage Alternative would include the conversion of timberland to vineyards (See Figure 6-6). However, the Reduced Acreage Alternative would strategically reduce project acreages in three areas to reduce impacts to adjoining properties and on-site biological resources. While the proposed Project would establish reserves for biological and cultural resources, the Reduced Acreage Alternative would expand the reserves around the resources by eliminating certain vineyard units; thereby maintaining these sites in their natural state. The Reduced Acreage Alternative would reduce the overall vineyard area by 33.2 acres (24.6 percent) by eliminating Unit Areas 1(a-d), 3, and 4. Unit 1 forms the northwest corner of the proposed Project, Unit 3 is located in the northeast corner of the Project site, and Unit 4 is located in close proximity to the archaeological sites and manzanita preserves.

CAL FIRE rejects the Reduced Acreage Alternative, because this alternative, which reduces the overall vineyard area by almost 25%, also may not be financially feasible. Approximately half (47%) of the Project site already will be set aside for the protection and preservation of environmental and cultural resources. The Reduced

Acreage Alternative would allow minimal vineyard development and would be substantially less effective in utilizing the unique topography, soils, and microclimate to of the site to produce premium quality grapes, one of the basic objectives of the Project. In addition, this alternative does not represent any meaningful improvement, from an environmental standpoint, over the proposed Project. The Project will not result in any unavoidable significant environmental effects. As such, the Reduced Acreage Alternative would not avoid or substantially lessen the environmental effects of the Project. (CEQA Guidelines, § 15126.6, subd. (f).) Because all significant or potentially significant Project impacts will be fully avoided or mitigated to a less-than-significant level, the difference in impact between this alternative and the proposed Project is not substantial under CEQA. (*Ibid.*; *Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.) The environmental effects of this alternative are discussed in the Draft EIR at pages 6-20 through 6-24.

D. Environmentally Superior Alternative

In addition to the discussion and comparison of impacts of the alternatives to the proposed project, CEQA requires that an “environmentally superior” alternative be selected and the reasons for such selection disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least adverse impacts. CEQA requires that if the No Project Alternative is the environmentally superior alternative, the EIR must identify an additional alternative that is environmentally superior [CEQA §15126.6 (e)(2)]. A discussion of the Reduced Acreage Alternative as the “environmentally superior” alternative is provided in the Draft EIR. (Draft EIR, pp. 6-24 – 6-25.) CAL FIRE rejects this alternative, because this alternative, which reduces the overall vineyard area by almost 25%, may not be financially feasible. Approximately half (47%) of the Project site already will be set aside for the protection and preservation of environmental and cultural resources. The Reduced Acreage Alternative would allow minimal vineyard development and would be substantially less effective in utilizing the unique topography, soils, and microclimate of the site to produce premium quality grapes, one of the basic objectives of the Project. In addition, this alternative does not represent any meaningful improvement, from an environmental standpoint, over the proposed Project. The EIR’s analysis determined that all Project impacts could be avoided or reduced to a less-than-significant level with the implementation of the mitigation measures. As such, the difference in impact between the proposed Project and the “environmentally superior” alternative is not substantial under CEQA. (CEQA Guidelines, § 15126.6, subd. (f); *Laurel Hills Homeowners Assn. v. City Council* (1978) 83 Cal.App.3d 515, 521; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 730-731; *Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 400-403.)

E. Alternatives Proposed by Commenters

In several comments on the Draft EIR and RDraft EIR, various alternatives to the proposed Project were suggested. CAL FIRE evaluated those alternatives in response to comments to the extent appropriate, and declines to provide further analysis as unnecessary based on the entirety of the record and as explained in responses to comments in the Final EIR. Specifically, with respect to the project alternatives suggested by commenters that were not added to the Final EIR and were not selected instead of the proposed Project, CAL FIRE hereby adopts and incorporates by reference the reasons set forth in the responses to comments contained in the Final EIR as its grounds for rejecting those alternatives.

F. Summary of Discussion Regarding Alternatives

For all of the foregoing reasons, CAL FIRE has determined to approve the proposed Project rather than an alternative to the proposed Project.

VI. PROJECT APPROVAL

A. Record of Proceedings

Various documents and other materials constitute the record upon which CAL FIRE bases these findings and the approvals contained herein. The location and custodian of these documents and materials is: CAL FIRE, Environmental Protection, Room 1516-25, 1416 9th Street, Sacramento, CA 95814.

B. Mitigation Monitoring Program

In accordance with CEQA, CAL FIRE must adopt a mitigation monitoring program to ensure that mitigation measures adopted herein are implemented. CAL FIRE hereby adopts the Mitigation Monitoring Program for the Project attached to these findings as Exhibit A.

C. Summary

1. Based on the foregoing findings and in light of the entire record of proceedings, CAL FIRE has made one or more of the following findings with respect to each of the significant environmental effects of the Project identified in the Final EIR:
 - a. Changes or alterations have been required in, or incorporated into, the Project that avoid or substantially lessen its significant or potentially significant effects on the environment.

- b. Those changes or alterations that are wholly or partially within the responsibility and jurisdiction of another public agency have been, or can and should be, adopted by that other public agency.
 - c. Specific economic, social, technological, legal, or other considerations make infeasible the mitigation measures or alternatives identified in the Final EIR that have been asserted to avoid or substantially lessen the identified significant environmental effects of the Project.
2. Based on the foregoing findings and in light of the entire record of proceedings, it is hereby determined that all significant or potentially significant effects on the environment due to approval of the Project have been eliminated or substantially lessened to a less-than-significant level.

EXHIBIT A

MITIGATION MONITORING PROGRAM

4

MITIGATION MONITORING PLAN

4.0 INTRODUCTION

Section 15097 of the California Environmental Quality Act (CEQA) requires all state and local agencies to establish monitoring or reporting programs for projects approved by a public agency whenever approval involves the adoption of either a “mitigated negative declaration” or specified environmental findings related to environmental impact reports.

The following is the Mitigation Monitoring Plan (MMP) for the Fairfax Conversion Project. The intent of the MMP is to prescribe and enforce a means for properly and successfully implementing the mitigation measures as identified within the Environmental Impact Report for this project.

4.1 MITIGATION MONITORING PLAN

The MMP contained herein is intended to satisfy the requirements of CEQA as they relate to the Environmental Impact Report for the Fairfax Conversion Project prepared by the California Department of Forestry and Fire Protection (CAL FIRE). This MMP is intended to be used by CAL FIRE staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMP were developed in the Environmental Impact Report prepared for the proposed project.

The Fairfax Conversion Project Environmental Impact Report presents a detailed set of mitigation measures that will be implemented throughout the lifetime of the project. Mitigation is defined by CEQA as a measure which:

- Avoids the impact altogether by not taking a certain action or parts of an action;
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation;
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment;
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project; or
- Compensates for the impact by replacing or providing substitute resources or environments.

Monitoring and documenting the implementation of mitigation measures will be coordinated by CAL FIRE. The table attached to this report identifies the mitigation measure, the monitoring action for the mitigation measure, the responsible party for the monitoring action, and timing of the monitoring action. The applicant will be responsible for fully understanding and effectively

implementing the mitigation measures contained within the MMP. CAL FIRE will be responsible for ensuring compliance.

During construction of the project, CAL FIRE will assign an inspector who will be responsible for field monitoring of mitigation measure compliance. The inspector will report to CAL FIRE and will be thoroughly familiar with permit conditions and the MMP. In addition, the inspector will be familiar with construction contract requirements, construction schedules, standard construction practices, and mitigation techniques. In order to track the status of mitigation measure implementation, field-monitoring activities will be documented on compliance monitoring report worksheets. The time commitment of the inspector will vary depending on the intensity and location of construction. Aided by the attached table, the inspector will be responsible for the following activities:

- On-site, day-to-day monitoring of construction activities;
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures;
- Ensuring contractor knowledge of and compliance with the MMP;
- Verifying the accuracy and adequacy of contract wording;
- Having the authority to require correction of activities that violate mitigation measures, securing compliance with the MMP;
- Acting in the role of contact for property owners or any other affected persons who wish to register observations of violations of project permit conditions or mitigation. Upon receiving any complaints, the inspector shall immediately contact the construction representative. The inspector shall be responsible for verifying any such observations and for developing any necessary corrective actions in consultation with the construction representative and CALFIRE;
- Obtaining assistance as necessary from technical experts in order to develop site-specific procedures for implementing the mitigation measures; and
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

4.2 MITIGATION MONITORING PLAN

The following plan indicates the mitigation measure number, the impact the measure is designed to address, the mitigation, the monitoring agency, implementation schedule, and an area for sign-off indicating compliance.

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
3.3 Air Quality					
3.3-1	Air quality impacts related to site preparation activities such as logging, grading, and excavation.	<p>3.3-1 <i>Prior to the issuance of a grading permit, the project contractor shall prepare an Erosion Prevention and Dust Control Plan. The plan shall be followed by the project's grading contractor and submitted for review and approval by the County Permit and Resource Management Department, which will be responsible for field verification of the plan during construction. The plan shall include the following control measures necessary for the proposed project:</i></p> <ul style="list-style-type: none"> • <i>Water all active and disturbed areas at least twice daily and more often during windy periods. Active areas adjacent to existing land uses shall be kept damp at all times, or shall be treated with non-toxic stabilizers or dust palliatives.</i> • <i>Apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas.</i> • <i>Limit traffic speeds on unpaved areas and roads to 15 mph.</i> 	<p>County Permit and Resource Management Department</p> <p>Northern Sonoma Air Pollution Control Department (Northern Sonoma ACPD)</p>	<p>Prior to issuance of a grading permit.</p> <p>Field verification during construction.</p>	

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
3.4 Biological Resources					
3.4-1	Impacts to thin-lobed horkelia (<i>Horkelia tenuiloba</i>).	<p>3.4-1 <i>Prior to the initiation of timber harvest operations, the applicant shall establish a 15.65-acre preserve on lands that have been designated on the west side of the project site that will protect the largest population of thin-lobed horkelia from the proposed project impacts (Figure 3.4-4). This preserve will be dedicated in a permanent deed restriction recorded on the title of the property that shall run with the land in perpetuity.</i></p> <p><i>The thin-lobed horkelia preserve shall be fenced prior to initiation of timber harvest operations according to the Fencing Plan prepared by Erickson Engineering. Wildlife-friendly fencing shall be installed along the northern and western perimeter of the preserve, with one gate at the northern road entrance. Wildlife-friendly fencing shall include a metal post and wire fence that would allow wildlife access to the preserves. No fencing will be necessary along the southern preserve boundary, as the preserve will be contiguous with a protected Streamside Conservation Area. Likewise, no fencing will be required along the eastern preserve boundary, as the adjoining forested lands are steep and undevelopable.</i></p> <p><i>Tree saplings shall be cleared on a yearly basis to</i></p>	<p>CAL FIRE California Department of Fish and Game (CDFG)</p>	<p>Prior to the initiation of timber harvest operations the applicant shall establish a 15.65-acre preserve on lands that have been designated on the west side of the project site that will protect the largest population of thin-lobed horkelia.</p> <p>Five years of plant monitoring.</p>	

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
		<p><i>prevent forest succession within the preserve. In addition, the vineyard has been designed to ensure that agricultural runoff does not enter the preserve. Following completion of vineyard development activities, the applicant shall ensure that any herbicide applications which may take place in the nearby vineyard unit(s) do not affect or enter the thin-lobed horkelia reserve.</i></p> <p><i>Road access into the thin-lobed horkelia preserve shall be limited to vehicles for the purpose of wetland creation, preserve management, maintenance, and scientific study. Timber harvest operations vehicles will use the new road that will be constructed north and west of the thin-lobed horkelia preserve to access the area south of the preserve as indicated on the revised Vineyard Plan dated May 24, 2010.</i></p> <p><i>Weed-free mulch, native slash or clean straw shall be used for erosion control throughout the project site. All cover crops and erosion control seed mixes will use either native grasses derived from genetic stock from the region of the project site, or the sterile wheat/tall wheat hybrid, Regreen©. Within the horkelia preserve, erosion control shall be used on existing and temporary roads in areas where the potential exists for excessive sediment delivery to preserves and existing wetlands. All necessary</i></p>			

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
		<p><i>erosion and sediment controls will be in place during activity associated with the construction of the access road west of the thin-lobed horkelia preserve.</i></p> <p><i>In accordance with CDFG Guidelines for Conservation of Sensitive Plant Resources Within the Timber Harvest Review Process and During Timber Harvesting Operations¹, a five-year mitigation monitoring plan for the thin-lobed horkelia preserve shall be implemented as follows. The mitigation monitoring plan will ensure that timber operations are conducted consistent with the mitigation measures specified in the EIR.</i></p> <p><i>To determine if the thin-lobed horkelia preserve is successfully supporting thin-lobed horkelia, the applicant shall have a qualified biologist conduct five years of plant monitoring. Annual spring sampling will be conducted when thin-lobed horkelia is in flower. Generally this species is in flower throughout its range between the months of May,</i></p>			

¹ CDFG 2005. *Guidelines for Conservation of Sensitive Plant Resources Within the Timber Harvest Review Process and During Timber Harvesting Operations*. Sacramento: California Department of Fish and Game, Habitat Conservation and Planning Branch. 9p.
<https://r1.dfg.ca.gov/portal/Portals/12/THPBotanicalGuidelinesJuly2005.pdf>.

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		<p><i>June, and July. In 2009, thin-lobed horkelia was in full bloom in the proposed thin-lobed horkelia preserve in mid-June.</i></p> <p><i>Monitoring shall include establishing fixed line sampling transects. In this fashion, trends in the plant communities can be ascertained. Sampling along fixed transects shall occur using a point intercept method derived from Bonham² to demonstrate and quantify the extent of cover of the monitored species. The systematic point-intercept sampling method will be used to determine the frequency of plant species or group of plant species in the community.</i></p> <p><i>Plant cover data for the monitored species shall be arrayed each year and compared. Because of normal stochastic fluctuations in all plant populations, only precipitous drops in cover of the monitored species shall be cause for further investigation. Plant cover data shall be arrayed over the five year monitoring period to determine population trends for the monitored plants. If the trend is significantly down, the annual monitoring report shall include an assessment of the possible reasons for population declines and</i></p>			

² Bonham, C.D. 1989. *Measurements For Terrestrial Vegetation*. John Wiley & Sons. New York. 338 pp.

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
		<p><i>recommendations for remedial actions that could reverse trends. Weather conditions such as drought and acts of God such as fire that cause precipitous population declines shall not constitute sufficient reason to take remedial actions. Any proposed remedial actions shall be discussed with CDFG in advance of the implementation of such measures.</i></p> <p><i>At the end of each monitoring year, a monitoring report shall be submitted to the CDFG and CAL FIRE. At the end of the five-year monitoring period, CDFG shall be invited to examine the plant preserves to further go over conclusions presented in the final five-year monitoring report. At the end of the five-year monitoring period, provided the preserve is supporting a stable thin-lobed horkelia population, all monitoring requirements shall terminate.</i></p>			
3.4-2	Impacts to Annapolis manzanita (<i>Arctostaphylos manzanita</i> x <i>A. stanfordiana</i>).	3.4-2 <i>Prior to initiation of timber harvest operations, the applicant shall set aside an area totaling approximately 4.4 acres on the east side of the project site (see Figure 3.4-4) for the preservation of Annapolis manzanita identified on the Artesa property. The preserve shall be dedicated in perpetuity through a permanent deed restriction recorded on the title of the property. The preserve area shall not be developed. Timber operations in the areas adjacent to the preserve shall use directional falling so that timber marked for removal</i>	CAL FIRE CDFG	Prior to the initiation of timber harvest operations, the applicant shall set aside an area totaling approximately 4.4 acres on the east side of the project site for	

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		<p><i>falls away from the reserve area. Heavy equipment and vehicles shall be excluded from the preserve area during timber harvest operations and project development and operation.</i></p> <p><i>The manzanitas within the preserve will be protected by fencing that will be installed prior to initiation of timber harvest operations and maintained by the owner in perpetuity. The preserve shall be fenced according to the Fencing Plan prepared by Erickson Engineering. Wildlife-friendly fencing shall include a metal post and wire fence that would allow wildlife access to the preserves. The preserve will be protected by vineyard fencing where it abuts with Vineyard Unit 4. Vineyard fencing will consist of standard vineyard deer fencing. Wildlife-friendly fencing will protect the east and south side of the preserve where it abuts with Annapolis Road and a dirt access road, respectively. Gates accessing the preserve shall remain locked at all times. It should be noted that extra care has been taken to ensure that there is a cohesive wildlife corridor planning element in the vineyard plan. All tributary and other preserves are only fenced with vineyard fencing where vineyards abut these protected features. Otherwise all remain open to larger contiguous blocks of unfenced lands.</i></p> <p><i>Tree saplings shall be cleared on a yearly basis to</i></p>		<p>the preservation of Annapolis Manzanita.</p> <p>Five years of plant monitoring.</p>	

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
		<p><i>prevent forest succession within the preserve. The vineyard has been designed to ensure that agricultural runoff does not enter the preserve. Following completion of vineyard development activities, the applicant shall ensure that any herbicide applications which may take place in the nearby vineyard unit(s) do not affect or enter the Annapolis manzanita reserve.</i></p> <p><i>Weed-free mulch, native slash or clean straw shall be used for erosion control throughout the project site. All cover crops and erosion control seed mixes will use either native grasses derived from genetic stock from the region of the project site, or the sterile wheat/tall wheat hybrid, Regreen©. Within the horkelia preserve, erosion control shall be used on existing and temporary roads in areas where the potential exists for excessive sediment delivery to preserves and existing wetlands. All necessary erosion and sediment controls will be in place during activity associated with the construction of the access road west of the thin-lobed horkelia preserve.</i></p> <p><i>A five-year mitigation monitoring plan for the Annapolis manzanita preserve shall be implemented that includes the following measures. Monitoring shall include measuring the area occupied by Annapolis manzanita. As Annapolis manzanita is a</i></p>			

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		<p><i>woody perennial plant, it can be monitored at any time of the year, so surveys that are conducted concurrently with thin-lobed horkelia monitoring are acceptable. Aerial coverage of Annapolis manzanita shall be measured by GPS mapping with submeter accuracy. In this fashion, trends in the plant communities can be ascertained. It is expected that over a five year monitoring period the area occupied by Annapolis manzanita will remain fairly consistent. In the event that aerial coverage by Annapolis manzanita drops significantly over the five year monitoring period, the reasons for decline shall be investigated.</i></p> <p><i>Remedial actions shall include replanting and other measures necessary to reverse trends. Weather conditions such as drought and acts of God such as fire that cause precipitous population declines shall not constitute sufficient reason to take remedial actions. Any proposed remedial actions shall be discussed with CDFG in advance of the implementation of such measures.</i></p> <p><i>At the end of each monitoring year, a monitoring report shall be submitted to the CDFG and CAL FIRE. At the end of the five-year monitoring period, CDFG shall be invited to examine the plant preserves to further go over conclusions presented in the final five-year monitoring report. All monitoring</i></p>			

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Impact Number	Impact	Mitigation Measure	Monitoring Agency	Implementation Schedule	Sign-off
		<i>requirements shall terminate at the end of the five-year monitoring period, provided the preserves are supporting a stable Annapolis manzanita population.</i>			
3.4-4	Impact to the northern spotted owl (<i>Strix occidentalis caurina</i>).	<i>3.4-4(a) While a single year of survey can be conducted pursuant to the USFWS's 1992 survey protocol (USFWS 1992a), in this protocol the USFWS encourages completion of a two-year survey "to provide a higher likelihood of accurately determining presence or absence of spotted owls." No northern spotted owls were detected during a two-year survey protocol survey conducted on the project site in 2006 and 2007 pursuant to the USFWS' 1992 survey protocol. Pursuant to this survey protocol, completion of a two-year survey with negative results remains a valid finding for two years after the survey is completed. Thus, if timber harvesting had begun prior to 2010, no further surveys would have been necessary pursuant to the 1992 protocol. However, because timber harvesting will commence in 2012 or in later years, a second set of full protocol-level surveys was conducted pursuant to the Draft 2010 Northern Spotted Owl Survey Protocol in 2010 and in accordance with the final revised 2011 Northern Spotted Owl Survey Protocol in 2011. No northern spotted owls were found on the project site in 2010 or 2011. Pursuant to the 2011 Northern Spotted Owl Survey Protocol, and consistent with the recommendations of the USFWS in this protocol, "Spot Check Surveys" shall</i>	CAL FIRE United States Fish and Wildlife Service (USFWS)	Pursuant to the 2011 Northern Spotted Owl Survey Protocol, and consistent with the recommendations of the USFWS in this protocol, "Spot Check Surveys" shall be conducted in survey years 3 (2012) and 4 (2013) in order for the negative survey findings to remain valid in years 2012 and 2013.	

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		<p><i>be conducted in survey years 3 (2012) and 4 (2013) in order for the negative survey findings to remain valid in years 2012 and 2013. Survey results shall be submitted to CAL FIRE. Spot Check Surveys are defined in the USFWS' 2011 protocol as 3 nighttime surveys within a 0.25 mile radius of the project area. Negative survey findings from the 2010 and 2011 surveys that were conducted pursuant to the 2011 Northern Spotted Owl Survey Protocol, with spot check surveys in years 3 and 4 that are also negative, will validate negative survey findings through 2013. Should timber harvesting commence in 2014 or in later years, a second set of full protocol-level surveys will be conducted pursuant to the 2011 Northern Spotted Owl Survey Protocol or any revision to this protocol in place after 2013.</i></p> <p><i>3.4-4(b) Current survey information indicates that at this time there are no impacts that are expected to occur to the northern spotted owl: Regardless, as required to comply with the Forest Practices Act as detailed at 14 CCR § 919.9, the following habitat protection measures shall be established to protect the northern spotted owl if in subsequent years northern spotted owls establish an activity center closer than 0.7 mile of the project site.</i></p>	CAL FIRE	Implement only if northern spotted owl are detected pursuant to MM 3.4-4(a).	

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		<p><i>Habitat Protection Measures</i></p> <p><i>The following definitions shall be used when evaluating impacts to the northern spotted owl:</i></p> <ol style="list-style-type: none"> <i>1. Definitions of nesting-roosting and foraging habitat.</i> <ol style="list-style-type: none"> <i>a. Nesting-Roosting Habitat includes the following:</i> <ol style="list-style-type: none"> <i>A. ≥60% canopy cover of trees ≥11 inches diameter at breast height (dbh).</i> <i>b. Foraging Habitat includes the following:</i> <ol style="list-style-type: none"> <i>A. ≥40% canopy cover of trees 11 inches dbh.</i> <i>B. Basal area = ≥75 ft²/acre of trees ≥11 inches dbh.</i> <i>2. Priority Ranking of Habitat Retention Areas.</i> <ol style="list-style-type: none"> <i>a. Tree Species Composition. Mixed conifer stands should be selected over pine-dominated stands.</i> 			

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		<p><i>A. Abiotic Considerations include the following:</i></p> <ul style="list-style-type: none"> <i>i. Distance to Nest.</i> <ul style="list-style-type: none"> <i>I. Nesting-roosting and foraging habitat should be located closest to identified nest tree(s), or closest to roosting tree(s), if no nesting trees are identified.</i> <i>ii. Contiguity.</i> <ul style="list-style-type: none"> <i>I. Nesting-roosting habitat within the 0.5-radius circle around an activity center must be as contiguous as possible.</i> <i>II. Fragmentation of foraging habitat must be minimized as much as possible.</i> <i>iii. Slope Position.</i> <ul style="list-style-type: none"> <i>I. Habitats located on the lower one-third of slopes provide optimal microclimatological conditions and an increased potential for the presence of</i> 			

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		<p><i>intermittent or year-round water resources.</i></p> <p><i>iv. Aspect.</i></p> <p><i>I. Habitats located on northern aspects provide optimal vegetation composition and cooler site conditions.</i></p> <p><i>v. Elevation.</i></p> <p><i>I. Habitat should be located at elevations of less than 6000 feet, although the elevation of some activity centers (primarily east of Interstate 5) may necessitate inclusion of habitat at elevations greater than 6000 feet.</i></p> <p><i>3. Habitat Quantities.</i></p> <p><i>a. Within 1000 feet of each activity center:</i></p> <p><i>A. Outside of the breeding season (August 1 through January 31), no timber operations shall occur within 1000 feet of an activity center other than use of existing roads.</i></p>			

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		<p><i>B. During the breeding season (February 1 through July 30), no timber operations shall occur within 1000 feet of an activity center other than use of existing, permanent, year-round roads.</i></p> <p><i>b. Within 0.7-mile radius (1000 acres) of, and centered on, each activity center:</i></p> <p><i>A. Habitat shall be retained to maximize attributes desirable for NSOs described in (2) above.</i></p> <p><i>B. At least 500 acres of suitable habitat must be present, as follows:</i></p> <p><i>i. 200 acres of nesting-roosting habitat.</i></p> <p><i>I. No timber harvest shall occur within the 100 acres of nesting-roosting habitat immediately surrounding each activity center.</i></p> <p><i>II. If the remaining 100 acres of nesting-roosting habitat is contiguous with the activity</i></p>			

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		<p><i>center or is located within the same drainage, harvest shall not reduce the pre-harvest basal area of these acres by more than 33%.</i></p> <p><i>III. If the remaining 100 acres of nesting-roosting habitat is not contiguous with the activity center or is not located within the same drainage, ≥60% canopy cover of trees ≥11 inches dbh shall be retained.</i></p> <p><i>ii. ≥300 acres of foraging habitat.</i></p> <p><i>C. No more than 1/3 of the remaining suitable habitat shall be harvested during the life of the plan.</i></p> <p><i>c. Between the 0.7-mile and 1.3-mile radius circles centered on each activity center:</i></p> <p><i>A. Retention of habitat should follow the ranking guidelines contained in (2) above.</i></p> <p><i>B. ≥836 acres of suitable habitat must be present.</i></p>			

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		<p><i>C. No more than 1/3 of the remaining suitable habitat shall be harvested during the life of the plan.</i></p> <p><i>If there is a deficit of any habitat quantities pre harvest, operations within that habitat type shall not reduce or degrade the amount or quality of that habitat.</i></p> <p>Operational Protection Measures</p> <ul style="list-style-type: none"> • <i>Helicopter yarding within 0.5 miles of an NSO activity center is prohibited between February 1st and August 31st.</i> • <i>No timber harvest operations shall occur until such time as CAL FIRE has reviewed all survey and habitat information required by 919.9(g) (provided in Section V of the THP) and has determined pursuant to 14 CCR 919.10 that take of an NSO will not occur. Any change in timber operations that results from a change in location, or the discovery, of an NSO after plan approval will have to be incorporated into the plan through the amendment process per 14 CCR §§ 1039, 1040, 1090.24, 1090.25 and 1092.27. CAL FIRE will treat such a change in</i> 			

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		<p><i>timber operations as a minor or substantial amendment, depending on the extent of the change.</i></p> <p><i>If in subsequent years surveys are again completed and northern spotted owls are found nesting in the trees on or immediately adjacent to the project site, or subsequent credible information becomes available that demonstrates that the northern spotted owl could be affected by the proposed project pursuant to the Forest Practices Act, the mitigation measures above shall be implemented. In addition, the applicant will consult with USFWS and any additional restrictions or mitigation measures imposed by this agency will become conditions of project approval.</i></p>			
3.4-5	Impacts to nesting raptors.	<p><i>3.4-5 Raptor nesting surveys shall be conducted no earlier than 30 days prior to commencing with any tree/brush removal or any earth-moving activity if this work would commence between February 1st and September 1st. The raptor nesting surveys shall include examination of all trees on the project site and, if possible owing to land access issues, within 1,000 feet of the entire project site. All stick nests and all tree cavities shall be examined for evidence of nesting raptors. Raptor nesting survey results shall be submitted to CAL FIRE.</i></p>	CAL FIRE CDFG	Surveys shall be conducted no earlier than 30 days prior to commencing with any tree/brush removal or earth-moving activity if this work would commence between February 1 – September 1.	

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		<p><i>If an active raptor nesting site is identified, then non-disturbance buffers will be established per CDFG recommendations. That is, nest buffers will be a minimum of 500 feet for Accipiters and 1,000 feet for Buteos. These nest buffers will be maintained until the nest site(s) are vacated by the nesting raptors, typically after young fledge and disperse. Any modification in the size of nest buffers will be discussed with CDFG prior to harvesting timber or clearing vegetation any closer than 1,000 feet from identified active nests.</i></p>			
3.4-6	Impacts to nesting birds (general).	<p><i>3.4-6 The Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3513, and 3800 prohibit the direct take of birds and their eggs and/or young. While birds in general can fly out of harm's way, bird's nests are vulnerable to destruction and disturbance that causes nest abandonment and concomitant loss of eggs and/or young. The project shall not impact nesting birds. Accordingly, if harvesting/conversion/land clearing and/or grading would occur between February 1st and September 1st, qualified biologists shall be required to conduct systematic, intensive preconstruction nesting bird surveys to ensure that there is no direct take of nesting birds, their eggs or young. Surveys should be in focused areas that consist of 100' x 100' plots of land and shall commence no sooner than two weeks in advance of timber harvesting/land conversion. Survey results</i></p>	CAL FIRE CDFG	If harvesting / conversion / land clearing and/or grading would occur between February 1 st and September 1 st , qualified biologists shall be required to conduct systematic, intensive preconstruction nesting bird surveys to ensure that there is no direct take of	

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		<p><i>shall be submitted to CAL FIRE.</i></p> <p><i>The buffer of any nest identified would have to be demarcated with a double stand of bright orange flagging tape tied 5 to 8 feet above the ground, and would have to be of sufficient size to protect the nest until such time that young fledge and reach independence of the nest. The size of the nesting buffer would need to be determined in the field by a qualified ornithologist, but should be, at a minimum, no less than 50 feet in diameter measured from the drip line of the nesting tree/bush. While labor intensive, such nesting bird surveys would best protect nesting birds and would otherwise ensure the project remains in compliance with the Migratory Bird Treaty Act and Fish and Game Codes that protect nesting birds.</i></p>		<p>nesting birds, their eggs or young. Surveys should be in focused areas that consist of 100' x 100' plots of land and shall commence no sooner than two weeks in advance of timber harvesting/land conversion.</p>	
3.4-7	Impacts to nesting yellow warblers.	<p>3.4-7 <i>To ensure that no construction-related impacts occur to nesting yellow warblers on the project site, preconstruction surveys for yellow warblers should be conducted no more than two weeks (14 days) prior to ground disturbance and/or clearing of brush and/or timber. Survey results shall be submitted to CAL FIRE. If nesting yellow warblers are identified nesting on or adjacent to the project site, a suitable temporary buffer area should be fenced around the nest tree. The size of the nesting buffer would need to be determined in the field by a qualified ornithologist, but should be, at a minimum, no less than 100 feet</i></p>	<p>CAL FIRE CDFG</p>	<p>Pre-construction surveys shall be conducted no more than two weeks prior to ground disturbance and / or clearing of brush and/or timber.</p>	

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		<p><i>between the nest site and the construction area.</i></p> <p><i>The dripline of the nest tree should be fenced with orange construction fencing (provided the tree is on the project site), and a 100-foot radius around the nest tree should be demarcated with a double stand of bright orange flagging tape tied 5 to 8 feet above the ground. If the tree is adjacent to the project site then the buffer shall be demarcated per above where the buffer occurs on the project site. The size of the buffer may be altered if a qualified ornithologist conducts behavioral observations and determines the warblers are well acclimated to disturbance. If this occurs, the ornithologist shall prescribe a modified buffer that allows sufficient room to prevent undue disturbance/harassment to the nesting birds. No disturbances shall be allowed within the established buffer until it is determined by a qualified ornithologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by August 1. This date may be earlier than August 1, or later, and would have to be determined by a qualified ornithologist.</i></p>			
3.4-9	Impacts to the foothill yellow-legged frog.	3.4-9 <i>In order to avoid impacting Patchett Creek and the foothill yellow-legged frogs that reside in this creek, a minimum 100-foot protective buffer will be established prior to timber harvest operations between Patchett Creek top-of-banks and any timber</i>	CAL FIRE RWQCB	Prior to initiation of timber harvest operations, a minimum 100-foot protective	

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		<p><i>harvest operations, and subsequently, project site development (Figure 3.4-4). This buffer will ensure that the existing shade and sunlight regimes present today in Patchett Creek are maintained except as modified by natural succession. In addition, a project site preconstruction SWPPP will be implemented prior to initiation of timber harvest activities to ensure that Patchett Creek, and indeed most tributaries on the project site (with rare exception), are protected from siltation and/or other project-related downstream impacts. Similarly, a post-project BMPs plan will also be implemented to ensure that there are no impacts to the water quality in Patchett Creek or other downstream receiving waters after implementation of the project. In addition, there is no significant potential for contamination of Patchett Creek by the use of fertilizer, herbicide, insecticide, or other agricultural chemicals in the proposed vineyard. Qualified, properly certified vineyard managers will use only State-approved fertilizers, herbicides, insecticides or other agricultural chemicals in accordance with the label instructions and any applicable usage guidelines in the event that any of these are determined necessary. Implementation of the SWPPP and the post project BMPs plan, and the establishment of protective buffers along Patchett Creek will ensure that impacts to the foothill yellow-legged frog are avoided. These measures are refined</i></p>		<p>buffer shall be established between Patchett Creek top-of-banks and and timber harvest operations, and subsequently, project site development.</p> <p>Preconstruction Stormwater Pollution Prevention Plan (SWPPP) and post-project Best Management Practices (BMP) Plan shall be implemented prior to initiation of timber harvest activities.</p>	

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		<i>in Mitigation Measure(s) 3.7-2(a-h), 3.7-3(a and b) and 3.7-4.</i>			
3.4-10	Impacts to the red-legged frog (Northern and California red-legged frog).	<p>3.4-10(a) <i>A qualified 10(a)(1)(A) biologist authorized to work with the California red-legged frog shall conduct protocol-level surveys for California red-legged frog prior to initiation of timber harvest operations based on the field methods presented in the U.S. Fish and Wildlife Service's (USFWS) Revised Guidance on site assessment and field surveys for California red-legged frogs (dated August 2005). The USFWS Guidance recommends a total of eight (8) surveys to determine the presence of California red-legged frog at or near a project site. Two (2) day surveys and four (4) night surveys are recommended during the breeding season (January 1 to June 30); one (1) day and one (1) night survey are recommended during the non-breeding season (July 1 and September 30). Each survey must take place at least seven (7) days apart, although you can pair a diurnal and a nocturnal survey during a 24 hour period. At least one diurnal and one nocturnal survey must be conducted after July 1st and before August 15th. The survey period must be over a minimum period of 6 weeks (i.e., the time between the first and last survey must be at least 6 weeks). The survey results shall be submitted to CAL FIRE. If no California red-legged frogs are found within the project area during these surveys, no</i></p>	CAL FIRE USFWS	Prior to initiation of timber harvest operations, eight surveys shall be conducted -- 2 day surveys and 4 night surveys during the breeding season (January 1 to June 30); and 1 day and 1 night survey during the non-breeding season (July 1 to September 30).	

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		<p><i>further regard for the California red-legged frog would be necessary. No additional mitigation measures would be required and impacts would be regarded as less than significant pursuant to the CEQA. If red-legged frogs are identified at any time during the course of surveys, no additional surveys will be conducted in the area, unless the surveying effort is part of a Service-approved project to determine the distribution of frogs at a site.</i></p>			
		<p>3.4-10(b) <i>Permission will be obtained from the USFWS for genetic testing to determine what species of red-legged frog occurs on the project site. If the species is the northern red-legged frog, mitigation compensation shall consist of dedicating Patchett Creek in a permanently preserved corridor and compensating for impacts to waters of the U.S. at a 2:1 ratio (replacement to impacts) consistent with other mitigation measures detailed herein that project wetlands and creek corridors.</i></p>	USFWS	If red-legged frog are found on-site, genetic testing shall be conducted.	
		<p>3.4-10(c) <i>If genetic testing confirms the presence of the California red-legged frog the following additional mitigation measures shall be required. An incidental take permit shall be acquired from USFWS for the proposed project prior to implementing the project. In addition, the applicant shall purchase mitigation credits at a</i></p>	USFWS	If genetic testing confirms the presence of California red-legged frog, an incidental take permit shall be	

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		<p><i>USFWS-approved mitigation bank with a Service Area that covers the project site or as otherwise approved by the USFWS. Mitigation credits that are purchased shall be based upon a minimum of a 1:1 compensation to impacts ratio for impacts to 191.6 acres of upland dispersal habitat. The total credits purchased by the applicant shall ultimately be consistent with USFWS requirements for this project.</i></p> <p><i>3.4-10(d) In lieu of purchase of mitigation credits from an approved CRLF mitigation bank, the applicant may secure and preserve in perpetuity habitat that is known to support the CRLF.</i></p>	USFWS	<p>acquired from USFWS prior to implementing the project.</p> <p>If genetic testing confirms presence of California red-legged frog, the applicant may implement this mitigation measure in lieu of purchasing mitigation credits as set forth in MM 3.4-10(c).</p>	
3.4-11	Sedimentation impacts to special-status salmonids.	3.4-11 <i>Implement Mitigation Measure 3.7-3.</i>	CAL FIRE Sonoma County Permit and Resource Management	Prior to issuance of grading permits.	

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			Department (PRMD)		
3.4-15	Impacts to waters of the United States and State.	<p>3.4-15(a) <i>Prior to initiation of timber harvest operations, the project applicant shall obtain a 404 permit (CWA) from the Corps. Upon acquiring a 404 permit, the applicant must also obtain a water quality certification from RWQCB under Section 401 of the CWA, an NOI from the SWRCB and a Streambed Alteration Agreement from CDFG.</i></p>	<p>CAL FIRE</p> <p>United States Army Corps of Engineers (ACOE)</p> <p>Regional Water Quality Control Board (RWQCB)</p> <p>CDFG</p> <p>State Water Resources Control Board (SWRCB)</p>	Prior to initiation of timber harvest operations.	
		<p>3.4-15(b) <i>Simultaneous with any impacts to waters of the U.S. and/or State (“wetlands”), the project applicant shall compensate for the loss of wetland habitat to ensure no net loss of habitat functions and values. To mitigate for the direct loss of 0.414 acres of jurisdictional wetlands, the applicant shall create/restore wetlands at a ratio of 2:1 (2 acres created/restored for every acre lost) on the project site. Created features shall generally be in-kind for seasonal wetlands lost.</i></p>	<p>CAL FIRE</p> <p>ACOE</p> <p>RWQCB</p> <p>Sonoma County PRMD</p>	Simultaneous with any impacts to waters of the U.S. and/or State, the applicant shall create/restore wetlands a ratio prescribed in this MM.	

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		<p><i>A detailed wetland mitigation plan shall be required that includes a five-year monitoring program and reporting requirements, responsibilities, performance success criteria, and contingency requirements. At the end of each monitoring year, an annual report shall be submitted to the Corps, RWQCB, Sonoma County, and CAL FIRE. The report shall document the hydrological and vegetative conditions of the mitigation wetlands, and shall recommend remedial measures as necessary to correct deficiencies. Mitigation lands would be subject to a deed restriction and an agency approved long-term management plan.</i></p> <p><i>The deed restriction would ensure that the wetlands are protected in perpetuity. The wetland mitigation plan would require approval by the Corps and the RWQCB.</i></p> <p><i>3.4-15(c) In lieu of creating compensation wetlands, as approved by the Corps and RWQCB, the applicant may purchase mitigation credits from an approved mitigation bank at a 2:1 ratio or as otherwise specified by the Corps and RWQCB.</i></p>	<p>ACOE RWQCB</p>	<p>A five-year wetland monitoring program and reporting plan shall be required.</p> <p>In lieu of creating compensation wetlands per MM 3.4-15(b), the applicant may purchase mitigation credits at a 2:1 ratio.</p>	

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3.4-16	Impacts to streamside conservation areas.	<p>3.4-16 <i>A habitat management plan shall be prepared and implemented for all streamside conservation areas and designated preserves prior to initiation of timber harvest operations. Maintenance as required to restore drainages would be one of the only allowable uses. The following uses and practices, at a minimum, may be permitted in the streamside conservation areas:</i></p> <ul style="list-style-type: none"> • <i>Access to the streamside conservation areas shall be limited to occasional activities for management, restoration and maintenance of the site's natural vegetation and drainageways; or for scientific study purposes.</i> • <i>State and federal resource agencies shall have access with adequate (24 hours) notice to the applicant for the purpose of inspecting the site's natural resources and monitoring the status and effectiveness of management practices.</i> • <i>Any existing pipelines and easements may continue to be maintained.</i> • <i>Existing roads, structures, fences, ditches, pumps, and other improvements may be maintained and repaired.</i> • <i>The streamside conservation areas shall be used for the conservation of wildlife or plant habitat including the development or</i> 	CAL FIRE CDFG	A habitat management plan shall be implemented prior to initiation of timber harvest operations.	

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		<p><i>maintenance of wetland areas.</i></p> <p><i>The following activities and uses shall be prohibited in the streamside conservation areas:</i></p> <ul style="list-style-type: none"> • <i>The legal or de facto subdivision or use of the streamside conservation areas including, but not limited to, any such subdivisions or establishment of separate legal parcels by (i) certificates of compliance or (ii) lot line adjustments.</i> • <i>The construction of deer fencing or other exclusionary fencing. Such fencing shall be allowed at the edge of vineyards constructed parallel and on the outside edge of the buffers.</i> • <i>The placement or construction of any buildings, structures, or other improvements of any kind, (including, without limitation, pipelines, fences, roads, parking lots, mobile homes, wind turbines, antennas, maintenance or other buildings).</i> • <i>Any agricultural, commercial, residential or industrial use or activity;</i> • <i>Any recreational use or activity.</i> • <i>Any use of chemicals including insecticides, rodenticides, and fertilizers. The applicant may, with approval from the Department of Fish and Game, use herbicides to control</i> 			

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		<p><i>noxious weeds to benefit native California flora/fauna.</i></p> <ul style="list-style-type: none"> • <i>The installation of new, or the extension of existing utilities including, without limitation, water, sewer, power, fuel, and communication lines and related facilities.</i> • <i>The operation of any motorized vehicle for any purpose, except for emergency use, fire control, or for maintenance, repair and restoration of the streamside conservation areas.</i> • <i>The pruning, felling, or other destruction or removal of dead or living native trees and shrubs or other native vegetation, except as necessary to control or prevent hazards, disease, or fire.</i> • <i>Any alteration of the surface of the land, including, without limitation, the excavation or removal of soil, sand, gravel, rock, peat, or sod.</i> • <i>Mining, drilling, exploration for, or extraction of minerals, hydrocarbons, steam, soils, or other materials on or below the surface.</i> • <i>Any use or activity that causes or is likely to cause soil degradation or erosion, or pollution of any surface or subsurface water.</i> • <i>The storage of any materials, vehicles, and/or supplies.</i> 			

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		<ul style="list-style-type: none"> <i>The dumping or other disposal of wastes, refuse, and/or debris.</i> <p><i>These or similar measures, when implemented, would reduce project impacts to streamside conservation areas to a level considered less than significant.</i></p>			
3.5 Cultural Resources					
3.5-1	Impacts to paleontological resources.	<p><i>3.5-1 The applicant shall arrange for a qualified paleontologist to be on-site for two to three full days during the initiation of earthmoving activities on the project site. Following the two to three days of paleontological monitoring, the paleontologist shall meet with the earthmoving equipment operators and the project archaeologist, in order to train them in the identification of fossils potentially existing on the site.</i></p> <p><i>In the event that any paleontological resources are discovered during vineyard development activities, the qualified paleontologist shall be immediately notified by the foreman supervising the excavation activities. The applicant shall provide the foreman with the paleontological contact information prior to initiation of construction activities. If loose, the fossils shall be set aside in a safe location for evaluation of significance by the paleontologist. If discovered within immovable bedrock, all work shall</i></p>	CAL FIRE	Two to three full days during the initiation of earthmoving activities on the project site a paleontological monitor shall be present.	

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		<p><i>be halted in the vicinity of the find to the extent feasible, and the paleontologist shall be consulted in order to determine whether the find is an isolated example or part of a more complex resource. Upon determining the significance of the resource, the consulting paleontologist, in coordination with the Director of the County Permit and Resource Management Department, shall determine the appropriate actions to be taken. The appropriate measures may include as little as recording the resource with a recognized paleontological authority such as the University of California, Berkeley, Museum of Paleontology (UCMP), or as much as excavation, recording, and preservation of the resources that have outstanding paleontological significance. A note requiring compliance with this measure shall be indicated on construction drawings and in construction contracts for the review and approval of the County Permit & Resource Management Department prior to issuance of grading permits.</i></p>			
3.5-2	Impacts to prehistoric cultural resources.	<p>3.5-2(a) <i>Prior to beginning any timber and/or ground disturbing operations within 100 feet of any of the significant archaeological sites identified within and adjacent to the project area, the location of the fences to be constructed around them shall be determined through on-site consultation among the CAL FIRE Archaeologist, the project Registered Professional Forester (RPF), the</i></p>	<p>CAL FIRE Stewarts Point Rancheria Tribal Historic Preservation Officer (THPO)</p>	<p>Prior to beginning any timber and/or ground disturbing operations within 100 feet of any of the significant archaeological</p>	

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		<p><i>project proponent's archaeological consultant and the Stewarts Point Rancheria THPO or his designee.</i></p> <ol style="list-style-type: none"> <i>1. There is a possibility that prehistoric or historical cultural materials may be uncovered during operations. Should this occur, operations within 100 feet of the discovery shall stop, the CAL FIRE archaeologist notified, and the other provisions of 14 CCR 929.3 implemented.</i> <i>2. No collection of artifacts or cultural materials by project personnel is allowed.</i> <i>3. The RPF of record shall communicate the above recommendations to the Licensed Timber Operator (LTO) prior to the start of operations.</i> <p><i>In keeping with applicable CEQA and Section 106 regulations, if archaeological site indicators are encountered during project implementation, work at the place of discovery shall be halted immediately until a qualified archaeologist can evaluate the finds (14 CCR §15064.5 [f] and 36CFR60.4). Prehistoric archaeological site indicators include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements (e.g., slabs and</i></p>		<p>sites identified within and adjacent to the project area, the location of the fences to be constructed around them shall be determined.</p>	

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		<p><i>handstones, and mortars and pestles); bedrock outcrops and boulders with mortar cups; and locally darkened midden soils. Midden soils may contain a combination of any of the previously listed items with the possible addition of bone and shell remains, and fire affected stones. Historic period archaeological site indicators generally include, but are not necessarily limited to: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps). When historic period archaeological site indicators are encountered ground disturbing activities within 100 feet of the discovery location shall be halted immediately until a qualified archaeologist can evaluate the find(s) (14 CCR §15064.5 [f]).</i></p> <p>3.5-2(b) <i>In the event that human remains are found during vineyard development activities, the steps required by 14 CCR Section 15064.5(e) of the CEQA Guidelines shall be carried out. All excavation or disturbance of the location and any nearby area reasonably suspected to overlie adjacent human remains shall cease. The Sonoma County Coroner shall be immediately contacted. If the coroner determines the remains to be Native American applicable law and regulation require the coroner</i></p>	<p>Sonoma County Coroner</p> <p>Native American Heritage Commission (NAHC), if remains are Native American.</p>	<p>In the event that human remains are found during vineyard development activities.</p>	

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		<p><i>to contact the Native American Heritage Commission within 24 hours. Subsequently the Native American Heritage Commission is mandated to identify the person or persons it believes to be the most likely descended from the deceased Native American. The most likely descendant may then make recommendations to the landowner or the person responsible for the excavation work, regarding the treatment of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98. A note requiring compliance with this measure shall be indicated on construction drawings and in construction contracts for the review and approval of the County Permit & Resource Management Department prior to issuance of grading permits.</i></p> <p>3.5-2(c) A. Pursuant to 14 CCR § 15126.4(b)(3)(C), if/when the CAL FIRE Archaeologist, the consulting archaeologist, and the Stewarts Point Rancheria THPO (or his designee) agree that data recovery through excavation is the only feasible mitigation for an archaeological site(s) discovered during project implementation, a data recovery plan (DRP) that makes provision for adequately recovering the scientifically important information from and about the site shall be</p>	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>If/when the CAL FIRE Archaeologist, the consulting archaeologist, and the Stewarts Point Rancheria THPO (or his designee) agree that data recovery through</p>	

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		<p><i>prepared and adopted prior to any excavation being undertaken. The DRP shall, at a minimum, include:</i></p> <ol style="list-style-type: none"> <i>1. A thorough description and current assessment of the condition of each site where data recovery is proposed.</i> <i>2. A description of the project with the areas of direct impact identified and the relationship of these areas of direct impact to the known archaeological site(s) clearly stated.</i> <i>3. A summary of the California Forest Practice Rules and California Environmental Quality Act (CEQA) compliance situation and the management goals of the study, including, but not limited to, defining the areal extent of the site(s), describing the depth, range and characteristics of cultural material and natural strata present, and listing all cultural deposits sampled and/or excavated to date, to determine whether the cultural deposits possess the integrity and potential data to address questions important in prehistory or history, and to provide information necessary to establish</i> 		<p>excavation is the only feasible mitigation for an archaeological site(s) discovered during project implementation, a data recovery plan (DRP) that makes provision for adequately recovering the scientifically important information from and about the site shall be prepared and adopted prior to any excavation being undertaken.</p>	

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		<p><i>what effect project implementation may have on these sites.</i></p> <ol style="list-style-type: none"> 4. <i>Identification and description of the portion of each site where data recovery is to be undertaken.</i> 5. <i>Identification and description of the portion of each site that will be destroyed without data recovery.</i> 6. <i>Pertinent background information on the environment, paleoenvironment, ethnography, archaeology and history, as appropriate, to demonstrate familiarity with the project area and type(s) of site(s) under study, and to provide a context for the discussion of relevant regional research topics.</i> 7. <i>The research questions/research topics relevant to the sites with an explanation of their importance to regional prehistory and/or history.</i> 8. <i>The expected data categories, how they relate to each topic and the sample size necessary to provide adequate cultural material for analysis.</i> 9. <i>Field and analysis methods to be used, with an explanation of their relevance to the research domains.</i> 10. <i>Methods for evaluating and treating</i> 			

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		<p><i>newly identified values. [Note: because situations may arise or data be encountered which were not anticipated in the research design, adequate provision shall be made therein for modification of the program to address unforeseen discoveries and/or other unexpected circumstances.]</i></p> <p><i>11. Archaeological sites found to contain human remains shall be treated in accordance with applicable provisions of Section 7050.5 of the California Health and Safety Code and through consultation with the Stewarts Point Rancheria THPO (see also Mitigation Measure 3.5-2(b)).</i></p> <p><i>12. Proposed disposition of recovered materials and records. Acceptable curation arrangements may include, but not necessarily be limited to:</i></p> <p><i>a. Return to the landowner in accordance with State private property rights if that is the landowner's expressed desire, AFTER description, study, and analysis in accordance with the DRP/research design are complete;</i></p>			

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		<p><i>b. Curation at a regional research center or appropriate public or private repository meeting the standards set forth in Guidelines for the Curation of Archeological Collections (State Historical Resources Commission 1993), provided reasonable access is guaranteed for future study]—following consultation about curation with the Stewarts Point Rancheria THPO.</i></p> <p><i>13. Consideration of non-archaeological concerns (e.g., cultural concerns expressed by the Stewarts Point Rancheria THPO, the interests of the private property owner in maintaining the integrity of their property rights, any paleontological, geological, or related values that may be present in the site deposit(s); and/or the environmental integrity of the sites).</i></p> <p><i>B. Before data recovery operations (and/or any subsurface archaeological treatment measures) are carried out, submit a draft of the DRP to the CAL FIRE Northern Region-Coast Area Archaeologist and the Stewarts Point Rancheria THPO and provide them a</i></p>			

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		<p><i>reasonable opportunity to review and comment. The DRP shall then be revised accordingly and a copy of the final DRP provided to the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO.</i></p> <p><i>C. The CAL FIRE Archaeologist shall be notified a minimum of five (5) business days prior to beginning work under the terms of the approved DRP.</i></p> <p><i>D. Once the DRP has been implemented, a final, confidential written archaeological report shall be prepared that contains, at a minimum, the reasons for the project, the data recovery plan, the methods employed in both field work and analysis, the data recovered, observations made, insights gained, conclusions reached, and a presentation of pertinent data. This report shall take into account the applicable recommendations set forth in Preservation Planning Bulletin No. 4(a), <i>Archaeological Resource Management Reports (ARMR): Recommended Contents and Format (Office of Historic Preservation, 1989)</i>. A draft of this report shall be submitted to the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO who shall be provided a reasonable opportunity to review and</i></p>			

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		<p><i>comment upon the draft report. Following this review, the final report shall be revised accordingly and two (2) copies provided to the CAL FIRE Archaeologist. In addition, copies shall be provided to the Stewarts Point Rancheria THPO and the Native American Heritage Commission if either party so requests.</i></p> <p>3.5-2(d) <u>Artesa Site-01</u></p> <p>1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. The site shall be clearly marked with highly visible fencing by the consulting archaeologist and/or his qualified designee(s) - in consultation with the Stewarts Point Rancheria THPO or his designee - prior to and during all ground disturbing timber harvesting and vineyard development activities. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in</i></p>	<p>CAL FIRE</p> <p>Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of Artesa Site-01.</p>	

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		<p><i>order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i></p> <p>2. <i>Although re-use of the existing seasonal road located approximately 150-200 feet to the northwest of the site is permitted, such use is restricted to ingress and egress – there shall be no mechanical grading or widening of the road.</i></p> <p>3. <i>A minimum 4-inch thick layer of gravel or other similar, suitable road rock material shall be placed (and maintained at that thickness throughout operations) on the 500-foot long segment of existing dirt road near Artesa Site-01.</i></p> <p>4. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO or his designee. When artifacts and/or other site indicators are encountered during operations,</i></p>			

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		<p><i>ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p> <p><u>Artesa Site-02:</u></p> <p>1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. The site shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development activities. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from</i></p>	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of Artesa Site-02.</p>	

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		<p><i>damage by artifact hunters or vandals.</i></p> <p>2. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p> <p><u>Artesa Site-04:</u></p> <p>1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. The site shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber</i></p>	<p>CAL FIRE</p> <p>Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take</p>	

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		<p><i>harvesting and vineyard development. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i></p> <p>2. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 shall be implemented (which include promptly notifying the CAL FIRE</i></p>		<p>place within the boundaries of Artesa Site-04.</p>	

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		<p><i>Archaeologist about the find).</i></p> <p><u>Artesa Site-05:</u></p> <ol style="list-style-type: none"> 1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. The site shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development activities. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i> 2. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by</i> 	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of Artesa Site-05.</p>	

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		<p><i>a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 shall be implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p> <p>3.5-2(e) <u>Artesa Parking Site:</u></p> <p>1 <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. The site shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location</i></p>	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of the Artesa Parking Site.</p>	

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		<p><i>shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i></p> <p>2 <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p>			

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		<p><u>Baling Wire Site:</u></p> <ol style="list-style-type: none"> <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. Site boundaries shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development activities. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i> <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist</i> 	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of the Baling Wire Site.</p>	

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		<p><i>and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p> <p><u>Artesa Crossing Site:</u></p> <p>1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. Site boundaries shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development activities. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be</i></p>	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of the Artesa Crossing Site.</p>	

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		<p><i>clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i></p> <p>2. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p>			

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		<p><i>End of the Day Site:</i></p> <ol style="list-style-type: none"> 1. <i>No project or ground disturbing activities or impacts of any kind shall take place within the site boundaries. Site boundaries shall be clearly marked by the consulting archaeologist and/or his qualified designee - in consultation with the Stewarts Point Rancheria THPO or his designee – with highly visible fencing prior to and during all ground disturbing timber harvesting and vineyard development. This fencing shall be maintained as necessary throughout ground disturbing activities within 100 feet of the site boundary. This location shall be clearly plotted on the project maps with specific and clear notations that this area is NOT to be encroached upon. In so doing, however, this location shall NOT be specifically labeled or identified as an archaeological site on the project maps in order to keep the identity and location of the site confidential and thus protect the site from damage by artifact hunters or vandals.</i> 2. <i>Ground disturbing activities taking place within 100 feet of the site shall be monitored by a professional consulting archaeologist</i> 	<p>CAL FIRE Stewarts Point Rancheria THPO</p>	<p>During construction and operation -- no project or ground disturbing activities or impacts of any kind shall take place within the boundaries of the End of the Day Site.</p>	

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		<p><i>and the Stewarts Point Rancheria THPO or his designee(s). Prior to beginning operations, the scope of the monitoring shall be determined in consultation with the CAL FIRE Archaeologist and the Stewarts Point Rancheria THPO. When artifacts and/or other site indicators are encountered during operations, ground disturbing activities within 100 feet of the find shall be halted, and the provisions of 14 CCR 929.3 implemented (which include promptly notifying the CAL FIRE Archaeologist about the find).</i></p> <p>3. <i>All trees within 100 feet of the site boundary that are to be harvested shall be felled and skidded away.</i></p> <p>4. <i>If management of the trees within the site boundaries to minimize shading of the future surrounding vineyard is necessary, specific measures to prevent damage to the site shall be proposed by the RPF as an amendment to the THP.</i></p> <p><u>Mendocino Redwood Company Property Site:</u></p> <p>1. <i>Ground disturbing activities within 100 feet of the property corner near where this site was</i></p>	<p>CAL FIRE Stewarts Point</p>	<p>During construction and operation -- no</p>	

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		<p><i>found shall be monitored by a professional archaeologist and the Stewarts Point Rancheria THPO or his designee.</i></p> <p>2. <i>The scope of the monitoring operations shall be included in the Monitoring Plan prescribed in Mitigation Measure 3.5-3(a).</i></p> <p>3. <i>Whenever a previously unidentified prehistoric or historic archaeological site is found during operations, ground disturbance within 100 feet of the find shall stop, the Department Archaeologist shall be immediately notified and the other provisions prescribed in 14 CCR 929.3 [949.3, 969.3] implemented.</i></p>	Rancheria THPO	project or ground disturbing activities or impacts of any kind shall take place within the boundaries of the Mendocino Redwood Company Site.	
3.5-3	Impacts to historical resources.	<p>3.5-3(a) <i>Prior to initiation of timber harvest operations, the applicant shall hire a qualified archeologist to prepare an archaeological monitoring plan for the review and approval by the CAL FIRE Northern Region-Coast Area Archaeologist and the Stewarts Point Rancheria THPO. The plan shall include, but not necessarily be limited to the following measures:</i></p> <ul style="list-style-type: none"> • <i>Native American monitor(s) (representing the Stewarts Point Rancheria tribe and designated by the Stewarts Point</i> 	CAL FIRE Stewarts Point Rancheria THPO	Prior to initiation of timber harvest operations.	

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		<p><i>Rancheria THPO) and an archaeological monitor(s) shall be present during all earth-moving activities associated with the proposed project.</i></p> <ul style="list-style-type: none"> • <i>Historical features shall be considered historically significant if the feature is a discrete deposit identifiable to the period of significance for the two mills, or if the deposit relates to substantially earlier occupation and the agricultural activities on the project site.</i> • <i>Prehistoric Native American deposits shall be considered an archaeological site if three or more cultural items are found within an area measuring roughly ten feet on a side.</i> • <i>Archaeological deposits that retain a strong focus, that is the ability to clearly represent the activities that created the deposit, shall be considered to have sufficient integrity to meet the criteria for listing on the National Register.</i> • <i>Identified sites shall be avoided by establishing construction fencing around the perimeter of each site designated for this type of protection to prevent damage from vineyard development activities. Vineyard workers shall be trained</i> 			

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		<p><i>regarding the importance of cultural materials.</i></p> <ul style="list-style-type: none"> <i>If the resources cannot remain in situ, Mitigation Measure 3.5-2(c) shall be implemented (i.e., Data Recovery Plan).</i> <p>3.5-3(b) <i>Prior to initiation of timber harvest operations, an archeological monitor shall be hired by the applicant and approved by the CAL FIRE Northern Region-Coast Area Archaeologist to train the timber harvest crew, and subsequently, the vineyard construction crew prior to commencement of ground disturbing activities in regard to the types of artifacts that they may find (including, but not limited to, ceramics/pottery, glass and/or metal artifacts and fragments, building foundations, linear features such as railroad grades, wells, privies, trash pits). In the event that an artifact is discovered, all work shall cease within 100 feet of the discovery until the archaeological monitor(s) has evaluated the find. The archaeological monitor(s) shall promptly consult with the CAL FIRE Northern Region Headquarters Archaeologist. If the resources cannot remain in situ, Mitigation Measure 3.5-2(c) shall be implemented (i.e., Data Recovery Plan).</i></p>	CAL FIRE	Prior to initiation of timber harvest operations and commencement of ground disturbing activities.	

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3.6 Geology					
3.6-2	Impact of seismic activity on proposed reservoir.	3.6-2 <i>Prior to the issuance of grading permits, the applicant shall provide a final geotechnical report to the Sonoma County Permit and Resource Management Department and CAL FIRE that addresses the entire reservoir area. All of the recommendations in the final geotechnical report shall be incorporated into the construction plans for the reservoir.</i>	CAL FIRE Sonoma County PRMD	Prior to issuance of grading permits.	
3.6-4	Increased soil erosion during and after construction from conversion and grading activities.	3.6-4 <i>Implement Mitigation Measures 3.7-2(a) to 3.7-2(h) and 3.7-3(a) and (b).</i>	CAL FIRE	Prior to issuance of grading permits.	
3.7 Hydrology and Water Quality					
3.7-2	Impacts to surface water quality from timber harvest and vineyard construction-related erosion and sedimentation.	3.7-2(a) <i>All timber harvesting activities on the project site, including harvest-associated road construction and maintenance, shall comply with California Forest Practice Rules water quality protection measures, as described in the Timber Harvest Plan prepared for the proposed project and approved by the Department of Forestry. The measures include, but are not limited to, the following:</i> <ul style="list-style-type: none"> • <i>Timber harvesting or timber operations shall not take place within the WLPZ adjacent to the conversion THP area;</i> 	CAL FIRE	During timber harvest operations in accordance with the THP for the project.	

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		<ul style="list-style-type: none"> • <i>The Licensed Timber Operator (LTO) shall utilize directional felling of timber adjacent to the WLPZ away from the zone, in order to protect the integrity of the zone;</i> • <i>The LTO shall not pile dirt and debris within or adjacent to the edge of the WLPZs;</i> • <i>Branches and tops of conifers, root wads, and hardwoods shall not be piled up for burning adjacent to WLPZs;</i> • <i>Timberland conversion operations (i.e., non-merchantable vegetation removal and stump removal) shall be immediately followed by initial vineyard development operations. Where this is not possible, skid trails and areas of exposed mineral soil created by commercial timber harvest operations shall be grass-seeded and mulched at 90 percent cover prior to November 15 of the timber harvesting season;</i> • <i>Operations between October 15 and November 15 shall cease when three (3) inches of rainfall has been recorded on-site;</i> • <i>The LTO shall not place, discharge, or dispose of or deposit in such a manner as to permit to pass into the waters of the state, any substance or materials, including, but not limited to, soil, silt, bark, slash, sawdust, or petroleum, in quantities deleterious to fish, wildlife, beneficial functions of riparian zones, or the quality and</i> 			

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		<p><i>County Permit and Resources Management Department. This post-construction monitoring plan is intended to supplement the project ECP and SWPPP for the first winter season after project construction. This monitoring plan may apply to specific sub-areas of the project, and could extend for more than one year, depending on the ultimate construction schedule. The monitoring plan shall be implemented for areas where site preparation has occurred in the prior construction season, including soil preparation, grading and drainage installation. The first-year post-construction monitoring requirement is fulfilled if the monitoring period follows all grading and drainage work, regardless of whether vineyard planting and cover crops have been established. If site preparation work is conducted, but final grading and drainage installation is not complete, this monitoring plan will extend to the subsequent winter until final grading and drainage work is complete. This monitoring plan may be combined with provisions of the ECP or SWPPP as appropriate subject to governing regulations.</i></p> <p><i>The post-construction monitoring plan has three components:</i></p> <ol style="list-style-type: none"> <i>1. Review of ECP and SWPPP provisions and implementation.</i> 		<p>project construction.</p>	

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		<p>2. Field inspections triggered by rainfall events.</p> <p>3. Response and reporting.</p> <p><u>ECP and SWPPP Review</u></p> <p>These erosion and drainage control plans are prepared by professional engineers, and are reviewed and enforced under local and State regulatory authority. The monitoring plan will use these plans, consisting of maps with specific installations and Best Management Practices (BMPs), to define specific objectives of field inspections. The ECP and SWPPP will define anticipated erosion locations and processes. The monitoring plan will consist of a checklist and maps derived from the ECP and SWPPP that guide field inspection of project work areas, particularly the perimeters where eroded sediment and runoff would be delivered from source areas.</p> <p><u>Field Inspections</u></p> <p>On-site inspections of portions of the project area subject to monitoring will occur in response to rainfall events as specified here. ECP and SWPPP requirements typically include complete installation of winter erosion control measures between October 1 and October 15. Rainfall reported for the Venado</p>			

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		<p><i>gage site located in the Coast Range in northwest Sonoma County will be used to determine the timing of field inspections. Real time data from this rain gage can be accessed via the internet from either of the following URLs:</i></p> <ul style="list-style-type: none"> • http://cdec.water.ca.gov/ • http://www.cnrfc.noaa.gov/precipMaps.php?group=rn&hour=24&synoptic=0 <p><i>The first field inspection will occur within two days following the first rainfall exceeding 1-inch in a 24 hour period beginning October 1. The second field inspection will occur when one of the two following conditions are met: 1-inch of rainfall in a 24 hour period after cumulative seasonal rainfall of 6 inches has occurred, or 2 inches of rainfall in a 24 hour period. A third inspection would occur after 1-inch of rainfall in a 24 hour period following seasonal accumulation of 12 inches of rainfall. Thereafter, inspections would occur following 2 inches of rainfall in 24 hours or within four weeks of the previous inspection, whichever occurs first.</i></p> <p><i>It is expected that any significant erosion problems will have developed, and been addressed within the first few substantial rainstorms, and that there would be a diminishing likelihood of identification of new</i></p>			

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		<p><i>problems after the first few inspections. After a total of six inspections have been performed according to the protocol above, subsequent inspections are optional and may be performed at the discretion of the project proponent. Inspections are not required within 7 days of any prior inspection, regardless of rainfall.</i></p> <p><i>Field inspectors will survey the portions of the site subject to monitoring and complete a visual inspection of the site guided by the checklist and maps developed during the ECP and SWPPP review. Supplemental documentation of conditions using photography is encouraged, but is not required. The checklist developed will be the primary reporting document and will include the following elements:</i></p> <ul style="list-style-type: none"> <i>• Observation date, time, weather conditions, precipitation event or other circumstances requiring inspection, observers name and contact information, name and contact information for project personnel responsible for maintenance and repair of erosion control measures.</i> <i>• A map developed for the monitoring program with cross-references between areas identified on ECP and SWPPP maps and checklist items.</i> <i>• Field assessment of erosion control measures as</i> 			

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		<p><i>adequate or requiring immediate additional controls or repairs.</i></p> <ul style="list-style-type: none"> • <i>Measurements or quantitative estimates of volume of eroded and deposited material, referenced to a location, and assessment of whether sediment was delivered to a watercourse.</i> <p><u><i>Response and Reporting</i></u></p> <p><i>The field inspector will provide advance notice of inspections, to the extent possible, to responsible project personnel to facilitate immediate response should it be necessary. If the field inspection identified any locations requiring immediate attention to repair or expand erosion control measures, the inspector shall contact responsible project personnel as soon as possible. A copy of the inspection checklist will be provided to responsible project personnel via facsimile or e-mail for review within 24 hours of the inspection. Project personnel will provide a written summary of any erosion control measures implemented in response to the field inspection within 5 calendar days of receipt of the inspection report. A summary report for each winter monitoring season will be submitted not later than June 15 to the regulatory authorities responsible for review and implementation of the ECP (County of Sonoma) and SWPPP (NCRWQCB).</i></p>			

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3.7-3	Impacts to surface water quality from vineyard-related erosion and sedimentation.	<p>3.7-3(a) <i>Prior to the issuance of grading permits, the applicant shall provide proof to the Department of Forestry and the Sonoma County Permit and Resource Management Department that the erosion and sediment control recommendations in the project Erosion Control Plan and the O'Connor Hydrologic Analysis have been incorporated in the construction plans. The measures shall include, but are not limited to, the following:</i></p> <ul style="list-style-type: none"> • <i>Establishment of a permanent hillside cover crop in the first year growing season;</i> • <i>Provision of contour planting, terracing, grading, or v-ditches in all vineyard block areas;</i> • <i>Inspection of all features for winter preparedness, maintenance, and storm water control facilities as necessary prior and during to the winter season;</i> • <i>Provision of straw mulching at an application rate of two (2) tons per acre in areas where cover cropping does not meet 90 percent coverage;</i> • <i>Monitoring of major drainages before and after major winter storms; and</i> • <i>Performance of any additional actions as necessary to ensure function of the drainage system facilities.</i> 	CAL FIRE Sonoma County PRMD	Prior to issuance of grading permits.	

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		<p>3.7-3(b) <i>The following Channel Erosion and Sedimentation Basin Monitoring Plan shall be implemented by the project applicant for the review and approval of the California Department of Forestry and Fire Protection and the Sonoma County Permit and Resource Management Department.</i></p> <p><u>Monitoring Plan - Class III Channel Response to Potential Peak Flow Increases, Artesa Fairfax THP & Conversion.</u></p> <p><u>Motivation</u></p> <p><i>The monitoring plan is motivated by findings of the O'Connor Hydrologic Analysis indicating the potential magnitude (Table 6, p. 29) and potential significance (Table 12, p.52) of expected peak flow increases. Erosion rates in existing stream channels could be accelerated by increased runoff and peak flow expected to result from the project.</i></p> <p><i>There is no compelling evidence that hydrologic change will cause significant erosion in Class III channels draining the project area. Channel response to peak flows is controlled by the size of channels, channel substrate, and the proximity of bedrock and boulder controlled channels downstream. Potential erosion of channels draining</i></p>	<p>CAL FIRE Sonoma County PRMD</p>	<p>Post-construction monitoring of channels and sedimentation basins annually for three years after project development.</p>	

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		<p><i>the project area is limited to varying degrees by these factors. Furthermore, peak discharge for high-magnitude, low-frequency flows (> 5 yr recurrence interval events) under current conditions indicate that the largest increases in peak flows (2 yr recurrence interval events) predicted under project conditions would be well within the range of flows transmitted by the existing channels in most locations. Hence, the potential for significant channel erosion related to peak flow change is limited by several factors.</i></p> <p><i>Given the relatively high variability and complexity of hydrologic and geomorphic processes, channel response to identified potential peak flow increases is somewhat uncertain. While the predictable potential effects of the project with mitigation are not significant, unpredictable events or unexpected responses could have substantial impacts. Consequently, a monitoring program is presented below at a conceptual level including substantial detail.</i></p> <p><u><i>Objective</i></u></p> <p><i>The objective of the monitoring plan is to observe and document erosion response, if any, of Class III channels draining the project area and verify that the magnitude of response does not rise to a</i></p>			

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		<p><i>significant level. No net increase in sediment yield from the project area is an environmental objective of the project.</i></p> <p><i>The Erosion Analysis concluded that the project (with mitigation) is expected to reduce sediment yields by 24 to 39 t/yr. The specific objective of this monitoring plan is to determine whether potential increases in sediment yield associated with accelerated channel erosion are less than 24 to 39 t/yr. In addition, the performance of sedimentation basins will be monitored to provide measurements of vineyard field erosion and sedimentation basin trapping efficiency. These measurements are warranted because they could lead to revisions of predicted vineyard field erosion, which could either increase or decrease the threshold of significance of channel erosion.</i></p> <p><u><i>Monitoring Plan</i></u></p> <p><i>The monitoring plan has three components:</i></p> <ol style="list-style-type: none"> <i>1. Detailed topographic surveys of selected channels;</i> <i>2. Annual survey of erosion of “sensitive” channels; and</i> <i>3. Survey of selected sedimentation basins.</i> <p><i>The annual monitoring survey results shall be</i></p>			

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		<p><i>submitted to CAL FIRE and the Sonoma County Permit and Resource Management Department.</i></p> <p><u><i>Topographic Surveys of Selected Class III Channel Reaches</i></u></p> <p><i>This element of the monitoring plan would include detailed topographic surveys using a total survey station to measure changes in channel elevation for sample sections of selected Class III stream channels. This study approach has been previously implemented by O'Connor Environmental for Class III streams in Humboldt County to fulfill monitoring requirements of the Pacific Lumber Company Habitat Conservation Plan. The strength of this approach is that it develops accurate, objective quantitative data documenting the dimensions and elevation of channels before the project and three years after project completion. This will provide statistical measures (using parametric techniques), of channel erosion rates that can be extrapolated to assess the magnitude of channel erosion in the project area. The study will be designed so that a range of hydrologic change is observed that will indicate whether peak flow change is correlated with channel erosion rate. Specifically, six channels (2, 20, 31, 40, 45B and 60A; see Hydrologic Analysis, Figure 6 for locations of these channels and Table 6 for the magnitude of expected peak flow change)</i></p>			

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		<p>would be monitored to determine erosion rates over a three year period.</p> <p><u>Annual Surveys of Class III Channels</u></p> <p>This annual survey would be conducted for the 18 channels considered to be moderately sensitive to peak flow (Hydrologic Analysis, Table 12). The survey technique to be employed would systematically observe and measure the surface area and depth of fresh channel and bank erosion features as a measure of annual erosion rates. This technique, while objective, requires field estimates that have only moderate levels of precision. The advantage of this approach is that it allows for broad coverage of the monitoring sites and is likely to detect significant changes in the rates of channel and bank erosion. Statistical tests for change would most likely utilize techniques for non-parametric data. These surveys would be conducted four times: once prior to project implementation to document baseline conditions, and then annually in late winter/early spring when annual erosion features are relatively easy to detect and measure. These annual surveys developed over a broad project area are also important in that they would likely detect unexpected rates of change in a time frame that would allow for timely response, if necessary.</p>			

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		<p><u>Annual Surveys of Selected Sedimentation Basins</u></p> <p><i>This annual survey would measure the volume of accumulated sediment and the grain size distribution of accumulated sediment in a sample of about 25% of the sedimentation basins in the project. By comparison to grain size distribution of the vineyard soils, the deposited sediment size distribution and volume can be used to estimate the erosion rate of the vineyard fields and the sedimentation basin trapping efficiency (see Reid and Dunne, 1996, Rapid Evaluation of Sediment Budgets, p. 49). The monitoring would be comprised of annual measurements of depth of accumulated sediment in selected basins and collection and laboratory analysis of samples of accumulated sediment. The selection of basins for monitoring would include a range of sediment basin sizes. Data analysis would include comparison of pre-project estimates of vineyard erosion rates and sediment trapping efficiency to measured rates and efficiency.</i></p> <p><u>Adaptive Management</u></p> <p><i>If monitoring data indicate that sediment yields from the project area are greater than predicted in the pre-project analyses, either from unexpected erosion of Class III channels or higher-than expected</i></p>			

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		<p><i>delivery rates of sediment eroded from vineyard fields, appropriate on- and off-site erosion mitigation will be developed with oversight by the lead CEQA agency or an alternative regulatory authority designated by lead CEQA agency.</i></p> <p><i>On- and off-site erosion mitigation, if deemed necessary and appropriate, may include identification of additional and presently unidentified erosion sites on the project site or on other property in the Patchett Creek watershed. Potential erosion sites could include road-related erosion sites, gullies, eroding stream banks, eroding landslide deposits, or other erosion sites delivering or potentially delivering substantial quantities of sediment to the stream channel network. Off-site projects should be developed in cooperation with any property owner involved, and should include an appropriate level of contribution from each property owner. Disused or informally abandoned logging roads and skid trails are probably the most appropriate type of erosion site to target for off-site mitigation, however, other types of sites should be considered if identified. If suitable or practical sites cannot be located in the Patchett Creek watershed, then sites in the Wheatfield Fork Gualala River watershed should be considered.</i></p>			
3.7-4	Water quality impacts pertaining to chemical	3.7-4 <i>Prior to the issuance of grading permits, the applicant shall provide the Department of Forestry</i>	CAL FIRE	Prior to issuance of grading	

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	contamination from timber harvest and vineyard operations.	<i>and the Sonoma County Permit and Resource Management Department with an Agricultural Chemical Use and Storage Contingency Plan. The Plan shall include the measures that will be taken in the occasion that a spill occurs. Potential measures include: the deployment of straw wattles or other barriers stored on-site, instructions for diverting any overland flow away from onsite drainages, the on-site storage of absorbent materials to clean up any spills, and a prominent listing of accident and hazard responding agencies, including: the Sonoma County Department of Emergency Services and the Sonoma County Hazardous Materials Response Team. The Plan shall be made available to all workers handling pesticides and shall be posted on the corporation yard building.</i>	Sonoma County PRMD	permits.	
3.8 Hazards					
3.8-1	Safety-related impacts pertaining to the presence of hazardous chemicals associated with the old sawmill site.	<i>3.8-1(a) Prior to issuance of a demolition permit by the County for any on-site structures, the applicant shall provide a site assessment that determines whether the old sawmill foundation to be demolished contains asbestos and/or other hazardous substances. If asbestos and/or other hazardous substances are found at levels above the applicable fiber count (asbestos) or TTLC (other substances) set by DTSC, the application shall include an asbestos abatement plan and/or hazardous substance remediation plan and the contractor shall</i>	Sonoma County Building Official Department of Toxic Substances Control (DTSC)	Prior to issuance of a demolition permit for any on-site structures.	

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		<p><i>take appropriate precautions to protect his/her workers, the surrounding residences, and to dispose of any hazardous construction waste in a manner consistent with local, State, and federal standards, subject to approval by the County Building Official and DTSC.</i></p> <p><i>3.8-1(b) Prior to issuance of grading and/or demolition permits, multiple soil samples shall be taken from the abandoned mill site and the samples shall be analyzed by a licensed toxic substances specialist. If hazardous chemicals are detected at levels in the soil samples above the applicable TTLC set by the DTSC, the applicant shall retain a licensed and certified hazardous waste removal contractor to prepare a remediation plan for the contaminated areas in accordance with local, State, and federal regulations and to the satisfaction of Sonoma County Environmental Health Department and the DTSC.</i></p>	<p>Sonoma County Environ. Health Department (SCEHD)</p> <p>DTSC, if contaminated soils are detected on-site.</p>	<p>Prior to issuance of grading and/or demolition permits.</p>	
3.8-2	<p>Safety-related impacts pertaining to the presence of hazardous chemicals associated with past illegal activities on the site.</p>	<p><i>3.8-2 Prior to issuance of grading and/or demolition permits, multiple soil samples shall be taken from the eastern portion of the project site in the vicinity of the dumped vehicles, and the samples shall be analyzed by a licensed toxic substances specialist. If hazardous chemicals are detected at levels in the soil samples above the applicable TTLC set by the DTSC, the applicant shall retain a licensed and certified hazardous waste removal contractor to prepare a remediation plan for the contaminated</i></p>	<p>SCEHD</p> <p>DTSC, if contaminated soils are detected on-site.</p>	<p>Prior to issuance of grading and/or demolition permits.</p>	

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		<i>areas in accordance with local, State, and federal regulations and to the satisfaction of Sonoma County Environmental Health Department and the DTSC.</i>			
3.8-3	Impacts relating to the past use of agricultural chemicals on the project site.	3.8-3 <i>Prior to the initiation of any ground disturbance activities, the project applicant shall provide to the Sonoma County Environmental Health Department a detailed environmental assessment pertaining to the on-site soils. If pollutants of concern are not detected, further mitigation is not necessary. If the assessment finds concentrations of any agricultural chemical residue that is above the applicable TTLIC set forth by the DTSC, thereby, potentially creating an unacceptable risk to workers on the project site, prior to issuance of a grading permit, the Sonoma County Environmental Health Department shall require the applicant to remediate the pesticide to the satisfaction of Sonoma County Environmental Health Department and the DTSC.</i>	SCEHD DTSC, if contaminated soils are detected on-site.	Prior to the initiation of any ground disturbing activities.	
3.8-4	Impacts relating to the potential use of agricultural chemicals during project operations.	3.8-4 <i>Implement Mitigation Measure 3.7-4.</i>	CAL FIRE Sonoma County PRMD	Prior to issuance of grading permits.	
3.8-5	Impacts from wildfire hazards.	3.8-5 <i>A fire hazard reduction zone shall be observed along those portions of the timberland conversion area that are adjacent to Annapolis Road, a county maintained public road. The fire hazard reduction zone shall extend 100 feet from the edge of Annapolis Road. Within this zone, slash created and</i>	CAL FIRE	Prior to and during project development.	

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		<i>trees knocked down by road construction or timber operations shall be treated for fire hazard reduction by lopping, piling and burning or removal from the zone. Lopping used within a fire hazard reduction zone shall consist of severing and spreading slash so that no part of it remains more than 30 inches above the ground.</i>			
3.9 Transportation and Circulation					
3.9-2	Short-term traffic impacts due to timber harvesting and vineyard development.	3.9-2 <i>Prior to any logging taking place on the site, the project applicant shall prepare a Construction Traffic Management Plan for review and approval by CAL FIRE. The plan should include all plans for temporary traffic control, temporary signage and striping, location points for ingress and egress of logging vehicles, staging areas, and timing of logging activity which appropriately limits hours during which large construction equipment may be brought on or off the site.</i>	CAL FIRE	Prior to logging on-site.	
3.10 Noise					
3.10-1	Short-term construction noise impacts.	3.10-1 <i>Timber harvest and vineyard construction activities shall be restricted to the hours of 7:00 am to 4:00 pm Monday through Saturday. Construction shall be prohibited on Sundays. In addition, all heavy construction equipment and all stationary noise sources (such as diesel generators) shall be fitted with factory-specified mufflers, and equipment warm</i>	CAL FIRE Sonoma County PRMD	Prior to initiation of timber operations and construction.	

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		<p><i>up areas, water tanks, and equipment storage areas shall be located in an area as far away from residences in existence at the time of EIR certification as is feasible. These criteria shall be included in the improvement plans submitted to the Sonoma County Permit and Resource Management Department prior to initiation of construction.</i></p>			
3.10-3	Noise impacts related to operation of the vineyard.	<p><i>3.10-3(a) In order to minimize noise impacts to residences surrounding the project site during grape harvest season, mechanical harvesting operations shall be limited as follows:</i></p> <ul style="list-style-type: none"> <i>• Daytime mechanical harvesting operations shall be limited to areas at least 280 feet from residences in existence at the time of EIR certification; and</i> <i>• Nighttime mechanical harvesting operations shall be limited to areas at least 500 feet from residences in existence at the time of EIR certification.</i> <p><i>These criteria shall be included in the improvement plans submitted to the Sonoma County Permit and Resource Management Department prior to initiation of construction. These criteria shall be implemented unless it can be demonstrated through noise level measurements conducted by a qualified</i></p>	Sonoma County PRMD	<p>Prior to initiation of construction (MM 3.10-3(a))</p> <p>During first year of grape harvest (MM 3.10-3(b))</p>	

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		<p><i>environmental noise consultant that such activities do not result in exceedance of the Sonoma County interior noise level standards.</i></p> <p>3.10-3(b) <i>The applicant shall retain a qualified acoustical consultant to perform noise level monitoring from the property line, residence, and chapel area of the Starcross Community during the first harvest season to verify that the Sonoma County noise standards are satisfied. In the event that corporation yard noise levels exceed the County's nighttime Noise Element standard of 45 dB L50 at the property line of the Starcross property, assuming this property line is considered to be sensitive, additional noise control measures such as the following could be implemented to further reduce noise levels from this area and ensure compliance with Sonoma County noise standards:</i></p> <ul style="list-style-type: none"> • <i>Portable noise barriers</i> • <i>Suspended acoustic curtains</i> • <i>Improved mufflers on mobile equipment</i> • <i>Modifications to nighttime operations</i> • <i>Procurement of quieter equipment</i> 			