

COUNTY OF NAPA
DEPARTMENT OF PLANNING, BUILDING AND ENVIRONMENTAL SERVICES
1195 THIRD STREET, SUITE 210
NAPA, CA 94559
(707) 253-4416

Initial Study Checklist
(Reference Napa County's Procedures for Implementing CEQA, Appendix C)

1. **Project Title:** 1510 Acquisition LLC Agricultural Erosion Control Plan #P24-00015-ECPA
2. **Property Owner(s):** 1510 Acquisition LLC, c/o Daniel Sedlmayer
3. **Contact Person, Phone Number and Email:** Pam Arifian, Planner III, (707) 259-5934, Pamela.Arifian@countyofnapa.org
4. **Project Location and Assessor's Parcel Number:** 1510 Diamond Mountain Road, Calistoga, CA 94515
Assessor's Parcel Number (APN) 020-400-013 (**Figures 1 and 2**)
Section 6, Township 8 North Range 6 West, Mt. Diablo Base
Latitude 38° 34' 06.06" N / Longitude 122° 34'27.38" W
5. **Project Sponsor:** 1510 Acquisition LLC
c/o Daniel Sedlmayer
1155 Connecticut Avenue, Suite 1200
Washington, DC 20036
Agent: Michael R. Muelrath (RPE #67435)
Applied Civil Engineering Inc.
2160 Jefferson Street, Suite 230
Napa, CA 94559
6. **General Plan Designation:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)

Background: The approximately 35.8-acre parcel contains approximately 16 gross acres of existing approved vineyard, an approximately 0.5-acre orchard, a 25,000-gallon winery, a single-family residence, two non-project groundwater wells, water tanks, related structural outbuildings and utility infrastructure, and dirt and gravel roads. The existing vineyard blocks were approved by Napa County under Permits #P16-00361-ECPA and #P16-00186-ECPA, and are located east, west, and south of the proposed vineyard blocks.

The Owner has elected to utilize the one-time Section 17 Exemption to the Water Quality and Tree Protection Ordinance (Ordinance No. 1438; adopted April 9, 2019), which states that the provisions of this Ordinance No. 1438 shall not apply to earthmoving activities associated with an agricultural project of five acres or less on slopes less than thirty percent. This exemption can be used only once per parcel; however, the project must comply with the Conservation Regulations in effect prior to the effective date of Ordinance No. 1438, and the project is still subject to CEQA.

The project would require a Less Than 3-Acre Timber Conversion Exemption Permit from CalFire pursuant to Forest Practice Rules. The Application will be filed concurrently with the final processing of this erosion control plan, utilizing this IS/MND for its CEQA compliance in issuing the Exemption Permit. The Timber permit process has its own environmental procedural protections built into the process; and will only proceed once this CEQA process is completed.

8. **Description of Project:** The proposed project involves the clearing of vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 2.4 gross acres of vineyard (i.e., proposed development area or project area) with approximately 1.9 net planted acres in two proposed vineyard blocks, located on an approximately 35.8-acre property (i.e., project site). Average slopes within the project area range from 11 percent (%) to 18% within the proposed vineyard block areas, with an overall average slope of 15%. The project would result in the conversion to vineyard of approximately 2.3 acres of Douglas fir forest and 0.1-acre of coast live oak woodland (192 trees greater than 6-inch diameter at breast height (DBH)). The project proposes a 2.9-acre tree canopy preservation area on land with slopes less than 30% and outside of stream setbacks, including approximately 1.5 acres of Douglas fir forest, 0.7-acre of coast live oak woodland and 0.7-acre of Oregon white oak woodland.

Rock removed during vineyard development would be used in the proposed development area for erosion control features. Short-term stockpiles, if needed, would be located within the proposed development area; no long-term stockpiles are proposed. There would be no transport of spoils off-site. The proposed vineyard would be irrigated from a proposed new well that would be located on the northern edge of proposed vineyard Block 1, with an anticipated demand of approximately 1.3 acre-feet (AF) of groundwater annually. The new well would replace an existing off-site well. Irrigation pipelines would be located in roads, vineyards and vineyard avenues, and within the proposed development area. No new wildlife exclusion fencing is proposed around the proposed vineyard blocks; however, existing fencing would be relocated to the property line.

Erosion Control Measures: Temporary erosion control measures include installation of sediment barriers, erosion control blankets, water bars, and a temporary cover crop for the first three years at 85%. Permanent erosion control measures include rolling ditches, storm drain pipes, energy dissipaters, straw mulch applied at 3,000 pounds per acre, and a permanent cover crop to achieve minimum densities of 85% for proposed vineyard Blocks 1 and 2. Vineyard avenues would be protected with a permanent no-till cover crop with densities maintained at 85% or more. Details of the proposed erosion control measures are provided in the Track I Vineyard Development and Erosion Control Plan (dated March 2024) prepared by Mike Muelrath (RPE #67435) of Applied Civil Engineering Inc., Napa, California (**Exhibit A**).

Earthmoving: Earthmoving and grading activities associated with the land contouring (250 cubic yards balanced onsite) and the installation of erosion control measures and subsequent vineyard operations include, but are not limited to, vegetation removal, soil ripping, rock removal and processing, discing, recontouring, incorporation of soil amendments, construction of vineyard access roads to connect development areas, and the development of erosion and runoff control measures.

Other Activities and Features: Other activities and features of the proposed project and subsequent vineyard development and operation include:

- a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 4-foot by 7-foot spacing pattern for an approximate vine density of approximately 1,556 vines per acre.
- b. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
- c. Ongoing operation and maintenance of the vineyard, which includes vine management (pruning, fertilization, and pest and disease control), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. The management regime of the no-till cover crop would consist of mowing and late winter or early springtime strip spraying in an 18-inch-wide strip by contact or systemic herbicides: no pre-emergent spraying would be utilized as part of cover crop management.

Table 1 lists a general schedule for the construction of the proposed project as identified in #P24-00015-ECPA and **Table 2** outlines typical general ongoing vineyard operations. The vineyard would be developed in one phase, with construction occurring for up to six months during the year. The final implementation schedule is pending action on #P24-00015-ECPA.

Table 1 – Implementation Schedule

April 1 – October 1	Remove existing vegetation, complete ripping, grading and discing, planting
October 15 ¹	All winterization complete, including seeding, straw mulching, and straw wattle installation.
October 16 – March 31	Maintain erosion and sediment control devices, inspect after all rain events producing significant runoff, re-seed temporary cover crop as needed to maintain appropriate cover.

¹ During the winter months (October 15 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Section 18.108.070(L).

Table 2 – Typical Annual Operations Schedule

January to February	a. Prune vines.
March to August	a. Sulfur application to protect against mildew. b. Mow cover crop. c. Weed control.
September to October	a. Harvest. b. Winterize vineyard and vineyard avenues.
November to April	a. Monitor and maintain erosion control measures and repair as necessary during rain events.

Vineyard construction is anticipated to generate about 20 trips per day for anticipated work crews of up to ten employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would be limited to tracklaying and rubber-tired vehicles and could include bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Proposed vineyard operations are anticipated to generate 120 truck trips annually for anticipated work crews of up to 14 employees. Typical operations include, but are not limited to, irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vine/vineyard inspection, on the days when these activities occur. During peak operations, activities such as vineyard pruning, weed and pest control, and harvest are anticipated to generate up to ten round trips per day, including grape haul trucks, for anticipated work crews of up to 14 employees. Anticipated equipment for vineyard operations would be limited to tracklaying and rubber-tired vehicles and could include tractors, backhoes, grape haul trucks, and ATVs and passenger vehicles and/or light trucks.

Implementation of the proposed project would be in accordance with the Track I Vineyard Development and Erosion Control Plan prepared by Applied Civil Engineering Inc. (March 2024 – **Exhibit A**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES), and at <https://www.countyofnapa.org/2876/Current-Projects-Explorer>.

9. Describe the environmental setting and surrounding land uses.

The project site is located in the Mayacamas Mountains on the west side of Napa Valley. General topography in the vicinity of the project site consists of rolling mountains with slopes ranging from 0% to 50%. The project area occurs on land with slopes between 11% and 18% and at elevations ranging from 660 to 735 feet above mean sea level.

The approximately 35.8-acre project site is located on Diamond Mountain Road, approximately 0.75-mile west of its intersection with State Route 29/128 and 0.5 mile southeast of the City of Calistoga, California (**Figures 1-3**). An existing private driveway from Diamond Mountain Road would provide access to the proposed project. Existing improvements on the project site include a driveway, dirt and gravel roads, a 0.5-acre orchard, a 25,000 gallon winery, a single-family residence, two non-project groundwater wells, water tanks, and related structural outbuildings and utility infrastructure, and approximately 16 gross acres of existing vineyard.

Surrounding properties are generally used for agricultural and rural residential purposes. There are eight wineries within approximately one (1) mile of the project parcel, which range in an annual production limitation from 5,000 to 81,000 gallons per year. The nearest known schools are Calistoga Elementary School, Calistoga Junior-Senior High School, Palisades High School, located approximately 0.75-mile to the northwest of the project parcel (Napa County GIS: Schools Layer). The nearest residences are scattered between approximately 780 feet and 1,200 feet to the east, south and west. The nearest residential community (City of Calistoga) is located adjacent to the property to the north, with residences located within 0.25-mile from the project area, and proposed residences within the Calistoga Hills Resort immediately adjacent to the parcel.

The project site is located within the Kortum Canyon Creek drainage, within the Napa River Watershed. Kortum Canyon (Diamond Mountain) Creek, a U.S. Geological Survey (USGS) blue-line stream, is located on the project site approximately 800 feet to the south of the proposed development area. Drainage from the project site is by sheet and shallow concentrated flow and through drainage infrastructure via an ephemeral drainage located within the project site to the south of the proposed development area. The project avoids the drainage with setbacks in excess of the required minimum 35-foot setback consistent with the Napa County Code (NCC)(Conservation Regulations) Section 18.108.025. Ultimately, runoff concentrates in Kortum Canyon (Diamond Mountain) Creek, which is tributary to the Napa River. The project site is not located within a municipal drinking water supply watershed, nor in any designated groundwater-deficient area.

The vegetation types on the project site include Douglas fir forest, coast live oak woodland, vineyard, and ruderal. Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Boomer-Forward-Felta Complex, 5 to 30% slopes. The closest active fault is the West Napa fault, located approximately 19 miles southeast of the project site (Napa County GIS Faults Layer).

11. Other agencies whose approval may be required (e.g., permits, financing approval, or participation agreement that may potentially be required from the identified permitting authority/agency).

Responsible (R) and Trustee (T) Agencies

Regional Water Quality Control Board (Regional Water Board) (R)
California Department of Forestry and Fire Protection (CalFire) (R)
California Department of Fish and Wildlife (CDFW) (T)

Other Agencies Contacted

Middletown Rancheria
Mishewal Wappo Tribe of Alexander Valley
Yocha Dehe Wintun Nation

- 12. California Native American Tribal Consultation:** Have tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?

Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on February 21, 2024. On February 23, 2024, the County received a response from Middletown Rancheria requesting consultation. On March 29, 2024, Yocha Dehe responded that the project site is not within the aboriginal territories of the Tribe, and therefore the invitation for consultation was declined and correspondence was deferred to the Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria. On April 2, 2024, Middletown Rancheria deferred consultation to Mishewal Wappo. The County sent a consultation closure notices to Middletown Rancheria and Yocha Dehe on September 3, 2024. Recommendations from the Mishewal Wappo Tribe of Alexander Valley have been incorporated into the mitigation for the project in **Section XVIII (Tribal Cultural Resources)**. Having reached agreement with the Mishewal Wappo Tribe, the County sent a consultation closure notice to the Mishewal Wappo Tribe on February 21, 2025. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input checked="" type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

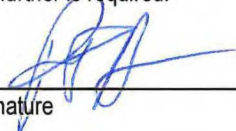
ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of the Napa County Environmental Resource Maps, the other sources of information listed in the file, and the comments received, conversations with knowledgeable individuals, the preparer's personal knowledge of the area, and visit(s) to the project site and proposed development area.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with ECPA #P24-00015-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559, or <https://www.countyofnapa.org/2876/Current-Projects-Explorer>.

- Applied Civil Engineering, March 15, 2024, 1510 Acquisition LLC, Vineyard Development Erosion Control Plan (**Exhibit A**).
- Environmental Resource Solutions, June 13, 2023, Biological Resource Reconnaissance Survey for 1510 Acquisition LLC, <3-acre Conversion; Calistoga, California, Napa County APN: 020-400-013 (**Exhibit B**).
- Archeological Resource Service, December 7, 2022, Archaeological Resource Management Report for the Vineyard Development Erosion Control Plan at 1510 Diamond Mountain Road, Calistoga, Napa County, California (APN 020-400-013).
- Applied Civil Engineering, June 19, 2023, Soil Loss Analysis, Acquisition 1510 Proposed New Vineyard Development, 1510 Diamond Mountain Road, Calistoga, CA 94515, APN 020-400-013 (**Exhibit C**).
- Richard C. Slade and Associates, January 17, 2024, Results of Napa County Tier 1 and Tier 3 Water Availability Analysis for a Proposed New Vineyard Development Project and Proposed New Irrigation Well at 1510 Diamond Mountain Road (APN 020-400-013) Calistoga, CA (**Exhibit D**).
- Applied Civil Engineering, May 23, 2023, Hydrologic Analysis, Proposed New Vineyard Planting, Acquisition 1510 Diamond Mountain Road, Calistoga, CA 94515, APN 020-400-013 (**Exhibit E**).
- Application submittal materials and Correspondence (**Exhibit F**)
- Project Revision Statement (**Exhibit G**)
- Site inspection conducted by Napa County Planning, Building and Environmental Services staff Pamela Arifian and Alexei Belov on February 13, 2024.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. Attached as **Exhibit G** is the signed Project Revision Statement.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



 Signature

4/17/2025

 Date

Pamela Arifian
 Napa County Planning, Building and Environmental Services

ENVIRONMENTAL CHECKLIST FORM

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a-c. The project site is located approximately 0.5-mile south of the St. Helena Freeway, State Route 29, which is a Napa County-designated scenic corridor road, and the entire project site is within the scenic corridor buffer (Napa County GIS, Viewshed roads and Scenic Corridors Layers). The project site is not located within the vicinity of an officially designated state scenic highway; State Route 29 is listed as eligible (Napa County GIS Road Layer; California State Scenic Highway System Map). While the project is within a scenic corridor, the project site is not visible from State Route 29 due to topography and southwest-facing aspect; further, the surrounding area includes existing vineyard land and open space, and there is existing vineyard on the adjacent properties to the east and the south. The project site is in the Napa Valley Agricultural Watershed (AW) zoning district which is dominated by vineyards and typifies the visual character of the area (Napa County GIS, Zoning Districts Layer).

The project site is not located on a prominent hillside, or a major ridgeline (Napa County Baseline Data Report, Chapter 12, map 12-3, 2005). Therefore, the approximately 192 trees in the proposed development area that are proposed for removal would generally not be visible from public roadways. The site is not located near a scenic vista, and there are no historic buildings on site. There are also no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project.

The surrounding land uses and project site include vineyard land and views of the proposed project would be consistent with this existing use and dominate use within the area (i.e., vineyard). Therefore, for the reasons described above, the proposed project would have less than significant impacts on a scenic vista, scenic highway, historic buildings, scenic trees, rock outcrops, and the visual character and quality of the site and surroundings.

d. Proposed agricultural operations in the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring in the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September), that could include nighttime activity (typically from 9 p.m. to 7 a.m.) approximately five days per year. The proposed project would include sulfur applications that could occur between 9 a.m. and 7 a.m., approximately 12 times per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with existing project site uses and surrounding land uses. Therefore, the proposed project would result in a less than significant impact.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resource Code Section 12220(g)), timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. The project site is partially mapped as Unique Farmland by the California Department of Conservation (Important Farmland Finder; Napa County GIS). The proposed project would result in an increase in productive agricultural farmland on the project site. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be no impact.
- b. The project site has an AWOS designation and is zoned AW (Napa County GIS Zoning Layer). Therefore, the establishment of vineyard totaling approximately 2.4 gross acres with approximately 1.9 net planted acres is consistent with project site's land use and zoning designations. The project site has a Williamson Act contract associated with it (93242-AGK Type H), which was enrolled with Napa County in 2023 (Napa County GIS, Ag Contracts). The proposed project would not convert any land within the project site to non-agricultural use; therefore, implementation of the proposed project would not conflict with the project site's land use designation or a Williamson Act contract. No impact would occur.
- c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined in California Public Resource Code Section 4526 as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forests products, including Christmas Trees. Commercial species shall be determined by the board on a district basis after consultation

with the district committees and others.” The proposed development area contains coniferous forest (Napa County GIS Zoning Layer, Napa County GIS Vegetation Layer); however, the project site is zoned as AW and is not zoned as forest land as defined in Public Resource Code Section 12220(g), timberland as defined in Public Resource Code Section 4526, or a Timberland Production Zone (TPZ) as defined in Government Code Section 51104(g). The project site is considered timberland according to the California Forest Practice Rules; the applicant is pursuing a Less Than 3-Acre Timber Conversion Permit from CalFire pursuant to Forest Practice Rules. Project approval, if granted, would be subject to the Forest Land Conditions of Approval described below. While the proposed project would convert 2.4 acres of timberland, the project would be consistent with agricultural watershed zoning and surrounding land uses. Therefore, with the conditions of approval the impacts would be less than significant.

Forest Land – Conditions of Approval: Prior to the commencement of vegetation removal and earth-moving activities pursuant to #P24-00015-ECPA, the owner/permittee shall provide documentation to Napa County demonstrating that a Less Than 3-Acre Timber Conversion Permit for the proposed project has been obtained from the California Department of Forestry and Fire Protection (CalFire).

- e. The proposed project would not construct new roads to access the vineyards on the project site. Construction of the proposed vineyard would not result in the conversion of existing farmland to non-agricultural. Although the proposed project would convert 2.4 acres of timberland to non-forestland uses, the applicant is pursuing a Less Than 3-Acre Timber Conversion Permit from CalFire (see the Forest Land Conditions of Approval above) and the proposed project would be consistent with agricultural watershed zoning and surrounding land uses. Therefore, the impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion¹

The Bay Area Air Quality Management District (BAAQMD) has published CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (referred to as CEQA Guidelines) to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans.² The CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin (SFBAAB). They contain nonbinding recommendations for how a lead agency can measure, evaluate, and mitigate air quality and GHG impacts generated from land use construction and operational activities.

¹ See Section VIII (Greenhouse Gas Emissions) for the greenhouse gas (GHG) emissions disclosure and impact assessment.

² BAAQMD, 2023. *2022 California Environmental Quality Act Air Quality Guidelines*. April 2023. Available at <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>.

The BAAQMD CEQA Guidelines do not replace the State CEQA Statute and Guidelines; rather, they are designed to provide BAAQMD-recommended procedures for evaluating potential air quality and climate impacts during the environmental review process that are consistent with CEQA requirements. The BAAQMD published its most recent update to the CEQA Guidelines on April 20, 2023, which is referred to as the 2022 CEQA Guidelines. The 2022 Guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017). The potential impacts associated with construction and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with BAAQMD's 2022 CEQA Guidelines.

a-b. The project site is generally located along the eastern side of Napa Valley, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, vehicular haul and worker trips, and the burning of any project area vegetation³. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. Refer to **Section XVII (Transportation)** for the anticipated number of construction- and operation-related trips.

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. Criteria air pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, respirable particulate matter less than 10 microns in diameter (PM₁₀), fine particulate matter less than 2.5 microns (PM_{2.5}), and lead. Air basins (or portions thereof) are categorized as "attainment," "nonattainment" or "unclassified" for each criteria air pollutant based on whether ambient air quality standards have been achieved. The SFBAAB is currently designated as a nonattainment area designated for the federal 8-hour ozone standard, state 1-hour and 8-hour ozone standards, state annual and 24-hour PM₁₀ standards, federal 24-hour PM_{2.5} standard and the state annual PM_{2.5} standard. Therefore, the criteria air pollutants of concern in the SFBAAB are reactive organic gases (ROG) and oxides of nitrogen (NO_x) which are referred to as ozone precursors, as well as PM₁₀ and PM_{2.5}.

Air quality attainment plans are required to be prepared for nonattainment areas both under federal and state law. The most recently adopted air quality plan to address nonattainment issues in the SFBAAB is the 2017 Bay Area Clean Air Plan (Clean Air Plan).⁴ The Clean Air Plan provides a regional strategy to protect public health and the climate by progressing toward attaining all state and federal air quality standards, eliminating health risk disparities from exposure to air pollution among Bay Area communities, transitioning the region to a post-carbon economy needed to achieve greenhouse gas (GHG) reduction targets for 2030 and 2050, and providing a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to SFBAAB residents, such as particulate matter, ozone, and toxic air contaminants (TACs); reduce emissions of methane and other "super-GHGs"⁵ that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.⁶

The BAAQMD's current guidance requires consideration of the following questions in determining whether a project is consistent with an air quality plan. If all three questions are answered in the affirmative with substantial evidence provided in support of the answer, the project would be considered to be consistent with the Clean Air Plan.

- 1) For each applicable air quality plan, does the project support the primary goals?
- 2) For each applicable air quality plan, does the project include all applicable control measures?

³ See **Section VIII (Greenhouse Gas Emissions)** for the greenhouse gas (GHG) emissions disclosure and impact assessment.

⁴ BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

⁵ "Super-GHGs" are climate pollutants that have a powerful ability to contribute to global warming, such as methane, black carbon, and fluorinated gases.

⁶ BAAQMD, 2017. Spare the Air, Cool the Climate, Final 2017 Clean Air Plan. Adopted April 19, 2017. Available at https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

- 3) For each applicable air quality plan, does the project not disrupt or hinder implementation of any control measures?

The BAAQMD-recommended guidance for determining if a project supports the goals of the current Clean Air Plan is to compare project-estimated emissions with BAAQMD thresholds of significance. If a project's emissions would not exceed the thresholds of significance after the application of all feasible mitigation measures, the project would be consistent with the goals of the Clean Air Plan. As indicated in the following discussion with regard to air quality impact Question b, the proposed project would result in less than significant impacts from construction and operation as the project would not generate criteria air pollutant emissions related to either construction or operation that would exceed the BAAQMD mass emissions thresholds of significance. Thus, the proposed project would not conflict with the goals of the Clean Air Plan.

The Clean Air Plan contains 85 control measures aimed at reducing air pollution in the SFBAAB, and projects that incorporate all feasible air quality plan control measures are considered consistent with the Clean Air Plan. Of these, the only control measure applicable to the proposed project is Transportation Control Measure TR22 that addresses emissions from construction equipment. Control measure TR22 uses various strategies to reduce emissions from construction and farming equipment (e.g., incentives for equipment upgrades and/ or use of renewable electricity and fuels). Since 2009, the BAAQMD has provided more than \$38 million to replace and/or upgrade hundreds of pieces of older, often uncontrolled equipment used in construction, cargo-handling and agricultural operations with newer units that have engines certified to the cleanest available standards. The proposed project would benefit from this ongoing program and would not conflict with its implementation. Therefore, the proposed project would not be inconsistent with nor hinder implementation of any of the Clean Air Plan control measures.

In summary, the proposed project would not conflict with or obstruct implementation of the Clean Air Plan. The impact would be less than significant.

The 2022 BAAQMD Guidelines provide thresholds of significance for air quality impacts from both construction and operation. According to BAAQMD, a project would have a significant impact on air quality if emissions from construction or operation would exceed the thresholds of significance shown in **Table 3**.

Table 3 – BAAQMD Thresholds of Significance for Construction and Operation

Pollutant	Construction	Operation	
	Average Daily (pounds per day)	Average Daily (pounds per day)	Annual (tons per year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ ^a	82	82	15
PM _{2.5} ^a	54	54	10
Fugitive Dust	Construction Dust Ordinance or other best management practices (BMPs)	Not applicable	

^a Includes PM emissions from exhaust only.
Sources: BAAQMD CEQA Guidelines April 2023.

For construction-related emissions of fugitive dust, the BAAQMD recommends that lead agencies take a qualitative approach to determine impact significance; the CEQA Air Quality Guidelines state that a project would be considered to have a less than significant impact with regard to fugitive dust emissions of PM₁₀ and PM_{2.5} if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air pollutant emissions from the proposed project, a review of the analysis of emissions associated with vineyard development/construction and operations performed for the CEQA analysis of three recent vineyard projects in Napa County was completed: Stagecoach North Vineyards⁷ for an approximately 91-acre vineyard

⁷ #P18-00446-ECPA, November 2022, SCH #2019100250

development, KJS and Sorrento Vineyard⁸ for an approximately 98-acre vineyard development, and Le Colline Vineyards⁹ for an approximately 28-acre vineyard development¹⁰.

All three vineyard projects involved similar activities associated with land clearing, construction, and installation of vineyards as the proposed project. Construction emissions estimated for each of these projects were divided by the development area for each to derive an estimate of the pounds per acre per day for each criteria air pollutant. Construction emissions included emissions from the use of off-road equipment and construction vehicles.

Table 4 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in construction emissions modeling results between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as construction trips, construction equipment and duration of use/operation. Variations in operational emissions between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as operational year and number of vehicle trips generated, level of off-road equipment use in operation, and the use of electric equipment and vehicles.

The proposed project would involve clearing of existing vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 2.4 gross acres of vineyard. During construction, vineyard installation is anticipated to generate about 20 trips per day for anticipated work crews of up to ten employees, including truck trips for equipment and supply delivery. A list of project-specific construction equipment was not provided by the applicant; therefore, typical vineyard construction equipment is anticipated for the proposed project, including bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks.

Daily construction emissions associated with the proposed project's 2.4 gross acre vineyard development (approximately 1.9 net-planted acres) were estimated using the average pounds per day estimated of the three vineyard projects described above and is shown in **Table 4**. As shown in **Table 4** short-term construction emissions associated with the proposed project would be well below the BAAQMD's daily construction thresholds.

Once completed, primary project operations would include activities such as vineyard pruning, weed and pest control, and harvest. During peak harvest season, operations are anticipated to generate up to ten round trips per day, including grape hauling trucks. Vineyard operations would be similar to the other three vineyard projects discussed above and the project proposes to develop a vineyard in a smaller area than the projects shown in **Table 4**. Therefore, operational emissions associated with the proposed project would be less than those shown in **Table 4** and well below both the daily and annual thresholds.

⁸ #P17-0432-ECPA, March 2023, SCH #2018092042

⁹ #P14-00410-ECPA, December 2022, SCH #2016042030

¹⁰ These EIRs are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services permanent files.

Table 4 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Construction Emissions			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North vineyard ¹ (pounds per acre per day)	0.08	0.75 to 0.78	0.03	0.03
KJS and Sorrento vineyard ² (pounds per acre per day)	0.5	0.42	0.02	0.02
Le Colline vineyard ³ (pounds per acre per day)	0.24	2.33	0.10	0.09
Average (pounds per acre per day)	0.12	1.18	0.05	0.05
Project Construction Emissions based on Average (pounds per day)	0.29	2.80	0.12	0.11
Construction threshold	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions ^{4, 5}			
Stagecoach North 91-acre vineyard operation ¹ (pounds per acre per day)	0.01	0.08 to 0.14	0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ² (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ³ (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Average (pounds per acre per day)	<0.01	0.03	<0.01	<0.01
Project Operational Emissions based on Average (pounds per day)	<0.01	0.07	<0.01	<0.01
Operational threshold (pounds per day)	54	54	82	54
Significant?	No	No	No	No
	Operational Emissions ⁴ (tons per year)			
Stagecoach North 91-acre vineyard operation ¹ (tons per year)	<0.01	0.01 to 0.03	<0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ² (tons per year)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ³ (tons per year)	<0.01	0.01	<0.01	<0.01
Average (tons per year)	<0.01	<0.01	<0.01	<0.01
Project Operational Emissions based on Average (tons per year)	0.01	0.06	<0.01	<0.01
Operational threshold (tons per year)	10	10	15	10
Significant?	No	No	No	No

1 As identified in Stagecoach North EIR

2 As identified in KJS and Sorrento EIR

3 As identified in Le Colline Vineyard EIR

4 Includes dust and exhaust emissions

5 Calculation based on 365 days of operation. Project emissions are anticipated to be less than identified as vineyard operations are seasonal in nature.

Sources: Stagecoach North Vineyard EIR 2022; KJS and Sorrento Vineyard EIR 2023; Le Colline Vineyard Initial EIR 2023; BAAQMD CEQA Guidelines April 2023.

Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 5-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project.

Air Quality – Conditions of Approval: The owner/permittee shall implement the following air quality BMPs during construction activities and vineyard maintenance and operations:

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.

- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage should be provided for construction workers at all access points.
- Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ¹¹ or the PERP website¹².

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 4**, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in **Table 4** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less than significant air quality impacts and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

- c-d. Land uses such as schools, playgrounds, childcare centers, hospitals and convalescent homes are considered sensitive to poor air quality, because infants and children, the elderly, and people with health afflictions, especially respiratory ailments, are more susceptible to respiratory infections and other air quality related health problems than the general public. Residential areas are also considered to be sensitive to air pollution because residents, which include children and the elderly, tend to be at home for extended periods of time.

The approximately 35.8-acre project site is located on Diamond Mountain Road, approximately 0.5 mile southeast of the City of Calistoga. An existing private driveway from Diamond Mountain Road would provide access to the proposed development area. Existing improvements on the project site include a driveway, dirt and gravel roads, approximately 16 acres of existing vineyard, a winery, a 0.5-acre orchard, a single family residence, two groundwater wells, water tanks, and related structural outbuildings and utility infrastructure. Surrounding properties are generally used for agricultural and rural residential purposes. The closest schools, Calistoga Elementary School, Palisades High School, and Calistoga Junior-Senior High School are located approximately 3,980 feet, 4,800 feet, and 5,000 feet northwest of the project site, respectively (Napa County GIS, Schools Layer). The nearest residence to the project site is located approximately 782 feet southeast of the project site.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, TACs and odors would be created through the use of construction, grading, and farm equipment (e.g., tractors, trucks, bulldozers, and an excavator). These sources would be temporary and/or seasonal in nature and would occur approximately 3,980 feet from the closest school and approximately 780 feet from the nearest rural residence, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors. Therefore, these impacts would be less than significant.

¹¹ http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf

¹² <http://www.arb.ca.gov/portable/portable.htm>

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

The following sources were used in this analysis and are incorporated herein by reference and available in the project file for review:

- Environmental Resource Solutions, June 13, 2023, Biological Resource Reconnaissance Survey for 1510 Acquisition LLC, <3-acre Conversion; Calistoga, California, Napa County APN: 020-400-013 (**Exhibit B**).

Environmental Resource Solutions conducted an assessment of biological resources present or potentially present in the project site. Biological resource surveys were conducted on March 20, April 7, April 28, May 22, May 25, and June 4, 2022. Botanical surveys were conducted on April 11, May 18, and June 20, 2022, and June 2, 2023. The surveys focused on the proposed development area and immediate surrounding habitat and documented: the presence or potential for special-status plant and animal species and their habitats, potential substantial adverse effects on sensitive habitats or communities, potential impacts to federal or state protected wetlands and waters of the U.S., and interference with native wildlife species, wildlife corridors, or native wildlife nursery sites.

Prior to conducting the biological surveys, biological information for the project site was obtained from the following sources: the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (CDFW, 2023), California Native Plant Society Electronic Inventory (CNPS, 2022), and the U.S. Fish and Wildlife Service (USFWS) List of Federal Endangered and Threatened Species California Bird Species of Special Concern (USFWS, 2022).

Field surveys were conducted by qualified biologists familiar with the resources of Napa County and surrounding counties, with the goal of identifying the presence of sensitive biological communities, the potential for biological communities on the site to support special-status plant and wildlife species, and the presence of any other sensitive natural resources protected by local, State, or federal laws and regulations. Botanical assessments followed protocols described in the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW, 2018), *Botanical Survey Guidelines of the California Native Plant Society* (CNPS, 2001), *The Jepson Manual* (Baldwin, 2012), and other relevant materials. Wildlife was identified by their sight, sign, or call. Field surveys were conducted identifying and recording all species in the proposed development area and in the near proximity.

The vegetation types in the proposed development area consist of Douglas fir forest alliance and coastal live oak woodland alliance. The additional vegetation types found in the project site outside of the proposed development area include Oregon white oak alliance, vineyard, ruderal, and willow woodland alliance. The vegetation types and their acreages are shown in **Table 5**.

Table 5 – Vegetation Types in the Project Site and Proposed Development Area

Vegetation Types	Approximate Pre-Project Acres in Project Site	Approximate Acres in Proposed Development Area
Douglas Fir Forest	5.32	2.3
Coast Live Oak Woodland	5.25	0.1
Oregon White Oak Woodland	4.92	0
Vineyard	16.92	0
Ruderal	2.09	0
Willow Woodland	1.3	0
Total	35.8	2.4

Source: Environmental Resource Solutions, June 2023 – **Exhibit B**

- a. **Special-Status Plants:** Based upon a review of the biological resource databases listed in **Exhibit B**, 27 special-status plant species have potential habitat present in the project site and/or within one (1) mile of the project site. Of those, 17 have been documented within one (1) mile of the project site and have a moderate to high chance to occur in the proposed development area: Napa false-indigo (*Amorpha californica* var. *napensis*), Rincon Ridge manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*), Brewer’s milkvetch (*Astragalus breweri*), Clara Hunt’s milkvetch (*Astragalus claranus*), narrow-anthered brodiaea (*Brodiaea leptandra*), Rincon Ridge ceanothus (*Ceanothus confusus*), Calistoga ceanothus (*Ceanothus divergens*), holly-leaved ceanothus (*Ceanothus purpureus*), Sonoma ceanothus (*Ceanothus sonomensis*), streamside daisy (*Erigeron bioletti*), Jepson’s leptosiphon (*Leptosiphon jepsonii*), redwood lily (*Lilium rubescens*), Napa lomatium (*Lomatium repostum*), green monardella (*Monardella viridis*), Cobb Mountain lupine (*Lupinus sericatus*), Napa bluecurls (*Trichostema ruygtii*), and dark-mouthed triteleia (*Triteleia lugens*). The biological surveys of the proposed development area did not identify any special-status plant species (Environmental Resource Solutions, June 2023 – **Exhibit B**).

Protecting the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats is encouraged by Napa County General Plan Goal CON-3.¹³ Additionally, pursuant to Napa County General Plan Policy CON-13,¹⁴ the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

¹³ Goal Con-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.

¹⁴ Policy Con-13: The County shall require that all discretionary residential, commercial, industrial, recreational, agricultural, and water development projects consider and address impacts to wildlife habitat and avoid impacts to fisheries and habitat supporting special-status species to the extent feasible. Where impacts to wildlife and special-status species cannot be avoided, projects shall include effective mitigation measures and management plans including provisions to: Provide protection for habitat supporting special-status species through buffering or other means.

The project as proposed would not remove special-status plants and/or populations, which is consistent with the following Napa County General Plan Conservation Element goals, policies, and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be avoided while allowing for the development of up to approximately 2.4 gross acres of agriculture in the project site; Policy CON-17 because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affect sensitive, rare, threatened, or endangered plants. Less than significant impacts would result related to project impacts on special status plants.

See item (e), below, for discussion on oak woodland.

Special-Status Animals: Based upon a review of the biological resource databases listed in **Exhibit B**, 80 special-status animal species have the potential to occur on the project site and/or within one (1) mile of the project site. Seven species have a moderate to high potential to occur in the proposed development area, including: sharp-shinned hawk (*Accipiter straitus*), olive-sided flycatcher (*Contopus cooperi*), purple martin (*Progne subis*), northern spotted owl (*Strix occidentalis caurina*), pallid bat (*Antrozous pallidus*), western red bat (*Lasiurus blossevillii*), and long-eared myotis (*Myotis evotis*). The biological surveys identified habitat for these special-status animal species within the proposed development area; no special-status animal species were observed. These species are discussed in further detail below (Environmental Resource Solutions, June 2023 – **Exhibit B**).

Sharp-shinned hawks are migratory and are typically winter residents throughout California. Preferred nesting habitats include dense, pole and small tree stands of conifers within cool, moist, well shaded forests with little ground cover and often near water (often within 275 feet of water). They use dense stands in close proximity to open areas and eat mostly small birds (smaller than jays), but will also eat mammals, insects, reptiles, and amphibians. Often sharp-shinned hawks will forage in openings at the edge of woodlands, hedgerows, brushy pastures, and shorelines. They breed in April through August with peak late May to July. The total breeding population within California is small and thus vulnerable to impact from falconry, logging and competition with Cooper's Hawks are other potential hazards.

Olive-sided flycatchers are summer residents in a wide variety of forest and woodland habitats below 9,000 feet throughout California. Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglas fir, redwood, red fir, and lodgepole pine; usually along forest edges. They require large, tall trees, usually conifers, for nesting and roosting sites, and often uses dead tips of uppermost branches of the tallest trees in the vicinity for singing posts and hunting perches. These birds forage for flying insects in forest openings, burns, edges, and other mixed open areas in forest habitats. The peak of egg-laying is in June. Habitat degradation and loss is the most important threat.

Purple martin are uncommon to rare residents in a variety of wooded, low-elevation habitats throughout the state. Purple martins frequent old-growth, multi-layer, open forests and woodlands with snags during the breeding season. They forage over riparian areas, forests, and woodlands. They also occur in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas fir, and redwood forests. Their nests are in old woodpecker cavities (often a tall, large cavity tree), but they will use human-made structures such as nesting box, buildings, on utility poles, under bridges, or in a culvert. Purple martins forage on insects, especially large ones like dragonflies. Purple martins breed April through August, with peak activity in June. Populations have declined because of loss of large snags, fire suppression, and competition for nest cavities from European starlings and house sparrows.

Northern spotted owls are typically residents within suitable habitat and do not engage in migratory behavior. Northern spotted owl's habitat includes a forest with dense, multi-layered canopy of several tree species; tree species of varying sizes and ages; abundant snags/cavity trees, broken tops, or platform-like structures; and open spaces among the lower branches to allow for flight. USFWS further defines northern spotted owl habitat as having at least 40% overstory canopy cover, with nesting/roosting habitat within stands exceeding 60% overstory canopy (with over 80% preferred). They feed primarily upon woodrats, but also are known to eat squirrels, mice, voles, and rabbits. Northern spotted owls breed February through August, with peak activity in April and May. Sensitive to habitat destruction and fragmentation as well as invading barred owls displacing northern spotted owls from their territories.

Pallid bat is a relatively common species of low elevations in California. The species occurs in a wide variety of habitats including grasslands, shrublands, woodlands, and forests; but it is most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines and hollow trees or buildings. Roosts must protect bats from high temperatures. Night roosts may be in more open sites. Tree roosting has been documented within snags, basal hollows of conifers, and within bole cavities in oak trees. Prey items are primarily insects and arachnids, including beetles, orthopterans, homopterans, moths, spiders, scorpions, solpugids, and Jerusalem crickets. The species mates from late October to February with maternity colonies forming in early April. Young are born April – July, with most in May and June. Young have been observed flying in July and August. The species is sensitive to disturbance of roosting sites.

Western red bats are locally common in some areas in California. There is migration between summer and winter ranges, and migrants may be found outside the normal range. Foraging occurs over a wide variety of habitats including grassland, shrub lands, open woodlands, forests, and croplands. They roost primarily in trees, less often in shrubs. Roosts are often along the edges of habitats and are often adjacent to streams, fields, or urban areas. Family groups may roost together, and nursery colonies are found with many females and their young. They may be found foraging with many other bat species, but usually do not roost with other species. Western red bats mate in August and September, births are from late May through early July, with young capable of flight between 3 to 6 weeks of age. A variety of animals including hawks, owls, opossums, cats, and jays prey on them.

The long-eared myotis is widespread in California but believed to be uncommon throughout its range. This species has been found in nearly all brush, woodland, and forest habitats, from sea level to 9,000 feet with coniferous woodlands and forests preferred. This species roosts in buildings, crevices, spaces under bark, and snags. Caves are used as night roosts. It feeds primarily along edges, in open habitats often near water. Mating occurs in the fall. Young are born from May – July, with a peak in June. Most young are flying by early August. The species is sensitive to disturbance of roost sites.

The special-status bat and bird species identified above have the potential to be impacted during removal of the approximately 190 trees during project construction. Further, in addition to the special-status bird species discussed above, other migratory birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code may also nest onsite, as the project site contains a variety of nesting habitat. Temporary and intermittent increases in noise levels during construction may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. These are considered potentially significant impacts. To reduce potentially direct and indirect significant impacts on special-status bat species to a less-than-significant level, **Mitigation Measure BIO-1** would be implemented.

Mitigation Measure BIO-1: The owner/permittee shall revise Erosion Control Plan #P24-00015-ECPA prior to approval to include the following measures to minimize potential impacts associated with the potential loss and disturbance of roosting bats:

- a. A qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a habitat assessment in order to identify suitable bat habitat trees within the project area(s), no more than six (6) months and no less than 14 days in advance of the planned tree removal. If the habitat assessment determines that trees proposed for removal contain suitable bat habitat, the following shall apply to potential bat habitat trees:
- b. Tree trimming and/or tree removal shall only be conducted during seasonal periods of bat activity (August 31 through October 15, when young would be self-sufficiently volant and prior to hibernation, and March 1 to April 15 to avoid hibernating bats and prior to formation of maternity colonies), under supervision of a qualified biologist, unless the Measure BR-2b., below, is implemented. Note that these windows may shift with atypical temperatures or rainfall if a qualified biologist determines that bats are likely to still be active based on seasonal conditions. Trees shall be trimmed and/or removed in a two-phased removal system conducted over two consecutive days. The first day (in the afternoon), limbs and branches shall be removed by a tree cutter using chainsaws only, under the supervision of a qualified biologist who has demonstrable experience with supervising tree removal for bats using this technique. Limbs with cavities, crevices and deep bark fissures will be avoided, and only branches or limbs without those features shall be removed. On the second day, the remaining tree limbs may be removed.

- c. If removal of bat habitat trees must occur outside the seasonal activities identified above (i.e., between October 16 and February 28/29 of the following year or between April 16 and August 30), a qualified biologist shall conduct a pre-construction survey of all potential bat habitat trees within 14 days of project initiation and/or tree limb removal to determine absence/presence of special-status bat species. Survey methods, timing, duration, and species shall be provided for review and approval by Napa County prior to conducting pre-construction surveys. A copy of the survey results shall be provided to the County Conservation Division and CDFW for review and acceptance prior to commencement of work. If bats are not present, removal can proceed without using the two-phased removal method. If bats are found to be present the qualified biologist shall determine if a maternity colony of winter torpor bats are present. If roosting bats are present but there are no maternity colonies or winter torpor bats, the tree shall be removed using the two-phased removal method outlined in (b), above. If the qualified biologist determines that maternity colonies or winter torpor bats are present, or they cannot confidently determine absence of maternity colonies or winter torpor bats, then tree removal shall be delayed until during the seasonal periods of bat activity outlined in (b) above.

To reduce potentially direct and indirect significant impacts on special-status and protected bird species to a less than significant level, **Mitigation Measure BIO-2** would be implemented.

Mitigation Measure BIO-2: The owner/permittee shall revise Erosion Control Plan #P24-00015-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

- a. For earth-disturbing activities occurring between February 1 and August 31 (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.027(C), and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the development area, and where there is potential for impacts adjacent to the development area (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than 7 days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 7 days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Conservation Division and the California Department of Fish and Wildlife (CDFW) prior to commencement of work.
- b. After commencement of work if there is a period of no work activity of 7 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
- e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) shall be prohibited.

Specific to the northern spotted owl, a Northern Spotted Owl Assessment was included in the biological resources report for the proposed project (**Exhibit B**). Protocol-level surveys were conducted from 2017-2023 as part of a Timber Harvest Plan. According to CDFW's Spotted Owl viewer dated May 1, 2023, there is one known northern spotted owl territory (NAP007) located approximately 1.1 miles south of the project site. Current monitoring efforts found this territory active in 2020, 2021, and 2022. There were no northern spotted owls detected in 2023. The removal of 2.3 acres of coniferous forest, combined with the effects of recent wildfires in the vicinity of the project site degrading or removing northern spotted owl habitat in Napa County, has the potential to result in a significant impact on this species.

To reduce potentially direct and indirect significant impacts on northern spotted owl to a less-than-significant level, **Mitigation Measure BIO-3** would be implemented.

Mitigation Measure BIO-3: The owner/permittee shall follow USFWS protocol for surveying for northern spotted owls in all years that timber harvest operations are anticipated. This includes having a minimum 2-year survey history prior to timber harvest operations, including six spot-check surveys in 2025. Once timber harvest operations are complete, northern spotted owl surveys are no longer necessary.

Northern spotted owl surveys are valid until the beginning of the next breeding season (February 1). Timber harvest operations after this February 1 date require a current years' survey effort.

As there are no known northern spotted owls within 0.25 mile of the proposed development area, there are no seasonal restrictions proposed at this time. If a new northern spotted owl territory is identified within 1.3 miles of the proposed development area or the known northern spotted owl territory (NAP007) moves closer to the proposed development area, a reassessment shall occur.

The owner/permittee shall provide documentation of any updated northern spotted owl survey results to Napa County Conservation Division before commencement of vegetation removal and earthmoving activities pursuant to #P24-00015-ECPA.

With implementation of **Mitigation Measures BIO-1 through BIO-3**, potential impacts related to special status plant and wildlife species would be less than significant.

- b-c. The project parcel does not contain any indicators of wetlands, and there are no riparian woodlands identified on the parcel. As such, no impacts would result from project implementation related to wetlands or riparian woodlands. Kortum Canyon (Diamond Mountain) Creek, a blue-line stream, is located on the project parcel approximately 800 feet south of the proposed development area. Two ephemeral tributaries to Kortum Canyon (Diamond Mountain) Creek also occur south of the proposed development area, including one drainage that occurs in between the proposed blocks. Minimum 35-foot stream setbacks have been maintained from the ephemeral drainages in accordance with NCC 18.108.025 (**Exhibit A**). The proposed project has also been designed to reduce existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soils loss or runoff as compared to existing conditions); therefore, the proposed project would result in less than significant impacts to this drainage. Further, implementation of the following standard condition of approval regarding stream protection would ensure that the on-site streams are protected from development impacts.

Conditions of Approval - Stream Protection: The applicant/owner shall implement the following measures to prevent the inadvertent encroachment into specified stream setbacks during construction and subsequent vineyard operations:

- The location of stream setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion control plan installation and vineyard installation. The protection fencing shall remain in place for the duration of project implementation.
- All construction and related traffic will remain outside of the protective fencing to the maximum extent practicable to ensure that the stream, buffer zones, and associated woodland habitat remains undisturbed.

Oak woodlands are considered sensitive by Napa County. The project site contains approximately 4.92 acres of Oregon white oak woodland (none of which occurs in the proposed development area) and 5.25 acres of coast live oak woodland, with 0.1-acre occurring in the proposed development area in Block 2. As proposed, the project would preserve 0.7-acre of coast live oak woodland, which exceeds the 2:1 replacement or preservation ratio required in General Plan Policy CON-24(C), resulting in less than significant impacts on the sensitive community. In addition,

following implementation of **Mitigation Measure BIO-4**, Block 2 would be removed from the project, further reducing potential impacts on oak woodland (refer to **Section VIII, Greenhouse Gas Emissions**).

- d. Wildlife corridors are natural areas interspersed with developed areas that are important for animal movement, increasing genetic variation in plant and animal populations, the reduction of population fluctuations, and the retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat, but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also preserve watershed connectivity. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that corridors should be at least 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape.

There are no identifiable wildlife corridors or unique wildlife habitat that would be impacted by the proposed project. The property is currently fenced, so movement of larger terrestrial wildlife species is already prohibited. Some localized movement and shelter habitat exist for common wildlife species within the ephemeral drainages, including the drainage between the two proposed vineyard blocks. The project, as proposed, provides setbacks from the drainage that exceed the minimum required setbacks pursuant to NCC Section 18.108.025.

Though the proposed project would incrementally reduce a small amount of habitat in the project area, resulting in changes in avifauna and rodent utilization in the area, the proposed project would not lead to significant impacts to habitat fragmentation in the region, significant species exclusion, or a significant change in species composition in the region. Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because they are temporary and because of the limited scale of the project.

No new wildlife exclusion fencing is proposed around the proposed vineyard blocks; however, existing fencing along the northern boundary would be relocated to the property line. The fencing would not result in significant changes to existing wildlife movement and use. Further, implementation of **Mitigation Measure BIO-4** would result in a reduced project area near the drainage, which would further reduce the potential impacts on wildlife movement and use.

While the project does not propose installation of new fencing, in order to ensure that any future new wildlife exclusion fencing is installed in a manner that is consistent with the biologist and CDFW recommendations to minimize impacts to wildlife movement, the following conditions shall be implemented, should the project be approved.

Fencing – Conditions of Approval:

- Any new fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
- Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape.
- Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P24-00015-ECPA required by this condition shall be strictly prohibited and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.

The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife nursery sites were not identified in the project site, and there would thus be no impacts to wildlife nursery sites. Impacts to wildlife movement, habitat use and availability, and vegetation removal would be less than significant.

- e. The project site contains approximately 5.32 acres of Douglas fir forest (with 2.3 acres in the proposed development area), 5.25 acres of coast live oak woodland (with 0.1 acre in the proposed development area), and 4.92 acres of Oregon white oak woodland (none of which occurs in the proposed development area). The proposed development area contains 192 trees with DBH greater than 6 inches that are proposed for removal (**Exhibit A**).

Specific to oak woodland, Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habitat, slope stabilization, soil protection and species diversity. General Plan Policy CON-24(a) requires that projects “preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects.” The project proposes to convert approximately

0.1-acre of coast live oak woodland in proposed Block 2 that is located at the top of a steeply sloped drainage that is tributary to Kortum Canyon (Diamond Mountain) Creek, a blue-line stream and County-designated "Significant Stream" that is tributary to the Napa River, and which is located on the parcel approximately 830 feet south (downstream) of proposed Block 2. It is the County's position that maintaining the existing oak woodland (including in Block 2) at the top of drainage would provide for slope stabilization, soil protection, species diversity and wildlife habitat per General Plan Policy CON-24(a). Therefore, **Mitigation Measure BIO-4** would be implemented to reduce potentially significant impacts related to consistency with General Plan Policy CON-24 related to oak woodland to a less than significant level.

Mitigation Measure BIO-4: The owner/permittee shall revise Erosion Control Plan #P24-00015-ECPA prior to approval to remove proposed vineyard Block 2, totaling 0.1 acre, from the proposed project to achieve consistency with General Plan Policy CON-24(a). This avoided area shall be demarcated with construction flagging/fencing before commencement of earthmoving activities. The precise location of the fence shall be inspected and approved by Napa County before the start of any earthmoving activities. Any incursions into the avoidance area/boundary shall be conducted only by qualified personnel and at the discretion of the County. No equipment or materials shall be laid down in or near the avoidance area/boundary.

General Plan Policy CON 24(c)¹⁵, specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, and, where preservation/avoidance of oak woodland is not feasible, replacement of oak woodland at a 2:1 ratio is required. Proposed vineyard Block 2 (located at the top of a drainage) contains 0.1 acre of coast live oak woodland. The project as proposed includes a 2.9-acre preservation area, which includes approximately 0.7-acre of coast live oak woodland. As proposed, the project is consistent with the 2:1 preservation ratio requirement found in CON-24(c); however, after implementation of **Mitigation Measure BIO-4**, which would remove the 0.1-acre of oak woodland from the development area, preservation of 0.2-acre of oak woodland would not be required. Less than significant impacts would result following implementation of **Mitigation Measure BIO-4** related to consistency with General Plan policies.

As previously stated, the Owner has elected to utilize the one-time Section 17 Exemption to the Water Quality and Tree Protection Ordinance (Ordinance No. 1438; adopted April 9, 2019), which states that the provisions of this Ordinance No. 1438 shall not apply to earthmoving activities associated with an agricultural project of five acres or less on slopes less than thirty percent. This exemption can be used only once per parcel; however, the project must comply with the Conservation Regulations in effect prior to the effective date of Ordinance No. 1438. As such, NCC Section 18.108.020 related to removal and preservation/replacement of vegetation canopy cover in the Agricultural Watershed zoning district does not apply.

With implementation of **Mitigation Measures BIO-1 through BIO-4** and the identified stream and fencing condition of approval, the proposed project would have less than significant impacts on special status plants and wildlife, wildlife movement and result in conformance with policies protecting biological resources in the Napa County General Plan and Conservation Regulations. Further, as discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, under existing conditions, the annual soil loss is anticipated to average 10.9 tons per acre per year across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, soil loss is anticipated to total 6.12 tons per acre per year, or a reduction of approximately 44% as compared to existing conditions. Therefore, the findings can be made that highest biological and water quality protections have been incorporated into the project, as proposed, with incorporation of **Mitigation Measures BIO-1 through BIO-4** and standard conditions of approval, consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108, resulting in less than significant impacts.

- f. There are no Habitat Conservation Plans, Natural Community Conservation Plans, or other similar plans applicable to the project site. Therefore, no impact would occur.

¹⁵ Policy CON 24(c): Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ration when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

See **Section XVIII (Tribal Cultural Resources)** for disclosures and the impact assessment pursuant to Public Resources Code 21080.3.1 (Assembly Bill 52 - Gatto).

The following report was used in this analysis and is incorporated herein by reference, in addition to Napa County GIS archeological sensitive areas and archeological sites layers: Archeological Resource Service, December 2022. Archeological Resource Management Report for the Vineyard Development Erosion Control Plan at 1510 Diamond Mountain Road, Calistoga, Napa County, California (APN 020-400-013) (contents confidential).

Archeological Resource Service conducted a cultural resources evaluation within the project site, which included a check of information on file with the regional office of the California Historical Resources Information System (CHRIS) and consultation with the Native American Heritage Commission for a search of the Sacred Lands File to determine presence or absence of previously recorded historic or prehistoric cultural resources; a check of relevant historic references to determine the potential for historic era archaeological deposits or structures; and a surface reconnaissance survey of all accessible parts of the proposed development area to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

- a-b. The cultural resources study (Archeological Resource Service, 2022) did not identify any significant or potentially significant cultural resources in the proposed development area. One previously recorded archaeological resource is located in the project site but outside of the proposed development area; no impacts are expected to occur during vineyard development. There is also the possibility that buried archaeological deposits could be present and accidental discovery could occur. The proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidentally.
- c. The cultural resources study did not locate any human remains in the proposed development area and does not anticipate the discovery of human remains due to implementation of the proposed project. Therefore, impacts on human remains are anticipated to be less than significant. Furthermore, the following conditions of approval would be incorporated should the proposed project be approved, which would ensure that potential impacts on human remains would be less than significant.

Cultural Resources – Conditions of Approval: Discovery of cultural, historical or archaeological resources, or human remains during construction, grading, or other earth moving activities:

- In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable solids, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching or other onsite excavation(s), earth work within 100-feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.

- If human remains are encountered the Napa County Coroner shall be informed to determine if an investigation of the cause of death is required and/or if the remains are of Native American origin. Pursuant to Public Resources Code Section 5097.98, if such remains are of Native American origin the nearest tribal relatives as determined by the State Native American Heritage Commission shall be contacted to obtain recommendations for treating or removal of such remains, including grave goods, with appropriate dignity.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

Consistent with Public Resources Code Section 21100(b)(3), this impact analysis evaluates the potential for the proposed project to result in a substantial increase in energy demand and wasteful use of energy during project construction, operation and maintenance. The impact analysis is informed by Appendix G of the CEQA Guidelines. The potential impacts are analyzed based on an evaluation of whether construction and operation energy use estimates for the proposed project would be considered excessive, wasteful, or inefficient.

- a. During construction of the proposed project, the use of construction equipment, truck trips for hauling materials, and construction workers’ commutes to and from the project site would consume fuel. Project construction is anticipated to occur over six months in one phase. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient when compared with other similar agricultural construction sites within Napa County.

Once construction is complete, equipment and energy use would be slightly higher than existing levels and the proposed project would not include any unusual maintenance activities that would cause a significant difference in energy efficiency compared to the surrounding developed land uses. Thus, the proposed project would not result in wasteful, inefficient, or unnecessary energy use. This impact would be less than significant.

- b. The transportation sector is a major end-user of energy in California, accounting for approximately 28% of total statewide energy consumption in 2019 (U.S. Energy Information Administration 2020). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California’s 30 million vehicles consumed more than 13 billion gallons of gasoline and more than 3 billion gallons of diesel each year (CEC 2024). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County Revised Draft Climate Action Plan, July 2018).

With respect to transportation energy, existing energy standards are promulgated through the regulation of fuel refineries and products such as the Low Carbon Fuel Standard (LCFS), which mandated a 10% reduction in the non-biogenic carbon content of vehicle fuels by 2020. Additionally, there are other regulatory programs with emissions and fuel efficiency standards established by United States Environmental Protection Agency and the California ARB such as Pavley II/LEV III from California’s Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) GHG

Regulation. Further, construction sites would need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation.¹³ The proposed project would comply with these State requirements and the Air Quality conditions of approval presented in **Section III (Air Quality)**. Napa County has not implemented an energy action plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets, and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be

¹³ California Code of Regulations, 2005. Title 13, Chapter 10, 2485, updated through 2014.

subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.

- i) The project site is not located on an active fault or within an “Earthquake Fault Hazard Rupture Zone” designated by the Alquist-Priolo Earthquake Zoning Act. The closest active fault is located approximately 1.38 miles west of the project site (Napa County GIS Fault 62500 Layer). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) Although the project site is located in an area that may be subject to moderate to strong seismic ground shaking potential during an earthquake (California Geological Survey, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.
 - iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County General Plan-Safety Element, 2023). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
 - iv) There are no landslides located in the vicinity of the project site; furthermore, the proposed development area is not located in an area with a mapped landslide deposit (Napa County GIS). Given the agricultural nature of the proposed project and the proposed erosion control measures, the proposed project would not directly or indirectly cause potential substantial adverse effects involving landslide potential; a less than significant impact would occur (also see Question c below for additional discussion regarding slope stability and landslides).
- b. Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Boomer-Forward-Felta Complex, 5 to 30% slopes. Installation and implementation of the proposed project would involve vegetation removal and earthmoving activities within the proposed development area. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earth-disturbing activities (other than installation of winterization measures) cannot be performed between October 16 and March 31. These activities would take place during the dry season when rainstorms are less likely, resulting in negligible erosion and sedimentation during project installation.

Soil loss calculations were prepared using the USLE to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through cover crops with a minimum vegetative cover density of 85% for proposed vineyard Blocks 1 and 2 as specified in the ECP. The cover crop provides the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by David Steiner (CPESC No. 770) and Michael R. Muelrath (RPE No. C-67435) (**Exhibit C**), the proposed conversion of approximately 2.4 acres of vegetation to vineyard is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 6**). Under existing conditions, the annual soil loss is anticipated to total 10.9 tons per acre per year across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to total 6.12 tons per acre per year, or a reduction of approximately 44% as compared to existing conditions.

Table 6 – USLE Soil Loss Analysis

Vineyard Transect ID	Pre-project Soil Loss (tons/acre/year)	Post-project Soil Loss (tons/acre/year)	Difference	Percent Change (approximate)
West	1.57	0.34	-1.23	-78%
Mid	4.54	2.77	-1.77	-39%
East	2.72	1.59	-1.13	-42%
Far East	2.07	1.42	-0.65	-31%
Total	10.9	6.12	-4.78	-44%

Source: Applied Civil Engineering, June 2023, Soil Loss Equation – Exhibit C

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the proposed project, including soil loss experienced during vineyard and cover crop development and establishment, consist of installation of straw mulching and other practices as needed.

Should the proposed project be approved, the following conditions of approval would be incorporated to ensure that erosion control measures are installed according to plan specifications.

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval:
 The following conditions shall be incorporated by reference into Erosion Control Plan #P24-00015-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to, rolling dips, storm drain pipes, energy dissipaters, and permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than October 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 “Oversight and Operation” the qualified professional that has prepared this erosion control plan (#P24-00015-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have been installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no-till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of a permanent cover crop to achieve minimum densities of 85% within the vineyard associated with this erosion control plan. Cover crop may be disced between rows and sprayed under vines or otherwise cultivated after April 1; after three years a permanent, no-till cover shall be established. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County “Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops” July 19, 2004, or as amended.

It is not expected that land preparation activities associated with the proposed vineyard, such as removal of rocks from the soil profile, would substantially affect the USLE modeling results. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and movement of soil particles. The primary goal of cultivating the soils within the development area during implementation is to prepare the site for planting, including fracturing and mixing layers of compressed soil and rock to facilitate root growth and improve permeability, rather than to remove all the rock within the development area soils. Soil cultivation may result in a greater number of smaller rocks at the soil surface. Smaller rocks that emerge through development would be left within the vineyard, and only larger rocks that surface would be removed. Because the larger rocks that may be removed from the site are generally underneath the soil surface, the removal of larger rocks that emerge during development would not significantly alter

the composition of soil. Therefore, the soil type classification utilized in the USLE calculations would remain unchanged (Oster, 2008).

For these reasons, the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project site, resulting in a less-than-significant impact with regard to soil erosion, soil loss, and sedimentation. Also see **Section IX (Hazards and Hazardous Materials)** and **Section X (Hydrology and Water Quality)** for additional disclosures related to water quality. Additionally, as shown in the soil loss modeling following development, overall soil loss is anticipated to be less than pre-development conditions. This is consistent with General Plan Conservation Element Policy CON-48, which requires post-development sediment erosion conditions (i.e., soil loss) be less than or equal to pre-development conditions.

Implementation of **Mitigation Measure BIO-4** would result in the elimination of proposed Block 2 from development activities. Block 2 corresponds with the "Far East" transect shown in Table 6. Elimination of this block from the project would change the soil loss equation from a reduction of 4.78 tons per acre (44% reduction) to a reduction of 4.13 tons per acre (47% reduction) compared to pre-project conditions. Potential impacts would remain less than significant.

- c. As discussed above, there are no landslide deposits located on or near the project site. The project site is located in an area with moderate landslide potential. The proposed development area is in an area prone to low chances of ground failure or liquefaction and the proposed project would address any potential soil instability. The proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. Therefore, the proposed project would not result in any significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.
- d. Soils in the proposed development area exhibit a low to moderate shrink-swell potential (USDA, 1978). However, no structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be no impacts associated with expansive soils.
- e. The proposed project involves the development of a vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed for the proposed project. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.
- f. The proposed project would not destroy any unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

Paleontological Resources – Conditions of Approval: Discovery of paleontological resources during construction, grading, or other earth moving activities:

- In the event that a discovery of a breas, true, and/or trace fossils are discovered during ground disturbing activities, all work within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate a net increase in greenhouse gas, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

See **Section III (Air Quality)** for other air quality emissions disclosures and impact assessments.

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022)¹⁶ and included them in its updated CEQA guidance published in April 2023 (referred to as the 2022 CEQA Guidelines). The updated thresholds to evaluate greenhouse (GHG) and climate impacts are qualitative in nature and geared toward reducing building energy and transportation emissions from land use development projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., a qualified Climate Action Plan [CAP]) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State’s long-term climate goals of being carbon neutral by 2045, then the project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) *62 Cal. 4th 204). There is no construction-related climate impact threshold at this time. As GHG emissions from construction represent a small portion of a project’s lifetime GHG emissions, the proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of a project’s GHG emissions.

The 2022 CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin. They contain nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and greenhouse gas impacts generated from land use construction and operational activities.

Napa County has been working to develop a CAP for several years. In 2012, a Draft CAP (March 2012) was recommended using the emissions checklist in the Draft CAP, on a trial basis, to determine potential GHG emissions associated with project development and operation. At the December 11, 2012, Napa County Board of Supervisors (BOS) hearing, the BOS considered adoption of the proposed CAP. In addition to reducing Napa County’s GHG emissions, the proposed plan was intended to address compliance with CEQA for projects reviewed by the County and to lay the foundation for development of a local offset program. While the BOS acknowledged the plan’s objectives, the BOS requested that the CAP be revised to better address transportation-related GHG emissions to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that best management practices be applied and considered when reviewing projects until a revised CAP is adopted to ensure that projects address the County’s policy goal related to reducing GHG emissions. In addition, the BOS recommended utilizing the emissions checklist and associated carbon stock and sequestration factors in the Draft CAP to assess and disclose potential GHG emissions associated with project development and operation pursuant to CEQA.

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as part of the first phase of development and preparation of the CAP, released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating the unincorporated County’s community-wide GHG emissions inventory to 2014, and ii) preparing new GHG emissions forecasts for the 2020, 2030, and 2050 horizons. On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018,

¹⁶ <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>,

through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at <https://www.countyofnapa.org/589/Planning-Building-Environmental-Services>. However, the County's draft CAP was placed on hold when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

In the absence of quantitative GHG thresholds from BAAQMD or a qualified CAP for the County, construction and operational GHG emissions from the project are evaluated against the 1,100 metric tons (MT) per year GHG threshold from the neighboring Sacramento Metropolitan Air Quality Management District (SMAQMD). While air quality emission thresholds are difficult to apply to across air districts due to the regional nature of air quality impacts, GHG emission impacts are global in nature. Therefore, the use of neighboring air district thresholds is an adequate evaluation given the absence of GHG thresholds from BAAQMD or a qualified CAP for the County. However, the County, as the Lead Agency, has opted to use a no net increase threshold for the evaluation of carbon dioxide (CO₂) emissions through carbon sequestration and carbon stock from vegetation at the project site.

Carbon sequestration refers to the ongoing process by which plants, such as vines, trees, and grasses absorb CO₂ from the atmosphere through photosynthesis, converting it into carbon that is stored in their biomass (roots, stems, leaves) and soil. This process helps remove CO₂ from the atmosphere over time. Any changes in land use or vegetation that reduce carbon sequestration—such as removing natural vegetation or converting land for other uses—lead to ongoing reductions in this CO₂-capturing benefit, potentially increasing the amount of CO₂ that remains in the atmosphere annually. A decrease in carbon sequestration is considered an increase in CO₂ emissions.

Carbon storage refers to the carbon stocks held in the soil and vegetation. When land is altered or vegetation is removed, the carbon stored in plants and soil can be released back into the atmosphere as a one-time event. Similarly, adding vegetation to a site would increase carbon stock. Unlike sequestration, which is an active, recurring process, changes to carbon stock typically result in a one-time change of CO₂, and not an ongoing loss or gain over time.

a-b. Overall increases in GHG emissions in Napa County were assessed in the EIR prepared for the Napa County General Plan Update certified in June 2008. GHG emissions were found to be significant and unavoidable in that document, despite the adoption of mitigation measures incorporating specific policies and action items into the General Plan.

The County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Conservation Element Plan Policy CON-65e. Pursuant to State CEQA Guidelines Section 15183, this assessment focuses on impacts that are "peculiar to the project," rather than the cumulative impacts previously assessed, because this Initial Study assesses a project that is consistent with an adopted General Plan for which an EIR was prepared.

GHGs are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect, including CO₂, methane, nitrous oxide, and fluorocarbons, which contribute to climate change. CO₂ is the principal GHG emitted by human activities, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. GHG emissions are reported as carbon dioxide equivalent (CO_{2e}) which is a metric used to compare the emissions from various GHGs on the basis of their global warming potential (GWP), by converting amounts of other gases with different GWPs to an equivalent amount of carbon dioxide with a GWP of one. CO₂ is used as the reference gas to calculate atmospheric carbon effects of GHGs. Carbon stocks and sequestration are converted to CO_{2e} by multiplying the carbon total by 44/12 (or 3.67), which is the ratio of the atomic mass of a carbon dioxide molecule to the atomic mass of a carbon atom (<http://ncasi2.org/COLE/faq.html>).¹⁷

¹⁷ "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as CO₂. Land clearing or the loss of carbon stock is thus a type of GHG emission (County of Napa, March 2012, Napa County Draft Climate Action Plan).

Because BAAQMD does not include significance thresholds for operational emissions of non-building projects, the operational emissions analysis below is for disclosure purposes only. Operational emissions are compared to the SMAQMD annual GHG threshold to provide context for the magnitude, or lack thereof, of operational emissions global impacts.

“Land Use Change Emissions” associated with the project are quantified and include: i) the carbon stocks that are lost or released when site vegetation is removed or burned, including any woody debris and downed wood; ii) underground carbon stocks, or soil carbon, released when soil is ripped in preparation for vineyard development and planting (referred to as Carbon Stock Emissions below); iii) continuous carbon sequestration that is gained or lost by altering vegetation or conserving specific land types (referred to as Carbon Sequestration Emissions below).

Construction Emissions:

Construction emissions associated with vineyard development projects include emissions from fuel used in construction equipment and vehicle trips used to develop and prepare the development area and plant vineyard. As discussed in **Section III (Air Quality)**, three County Certified CEQA documents assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the highest emissions results of the three projects; the KJS EIR anticipated approximately 1,880 metric tons (MT) CO_{2e} of construction emissions for a 142-acre vineyard development, resulting in approximately 19.2 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁸ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed project’s 2.4 gross acres of vineyard development would be approximately 46.2 MT CO_{2e} (2.4 acres multiplied by 19.24 MT CO_{2e}). Construction emissions are seasonal in nature and would only occur during the dry season (April-October) of any given year. While BAAQMD has no quantitative GHG threshold for comparison, the project’s construction equipment emissions are well below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e}, and therefore are less than significant.

Operational Emissions:

Emissions associated with the operation of the vineyard capture ongoing emissions from the use of equipment and vehicles to maintain and farm the vineyard, including vehicles (such as haul trucks, pick-up trucks) and worker vehicle trips. The three vineyard development project analyses referenced above also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential operational emissions per acre of vineyard development were derived using the highest emissions results of the three projects; the Stagecoach North Vineyard EIR estimated approximately 322 MT CO_{2e} of operational emissions per year for a 116-acre vineyard, resulting in approximately 2.77 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission rate, it is anticipated that operational equipment emissions associated with the proposed 2.4-acre agricultural development would be approximately 6.6 MT CO_{2e} per year (2.4 multiplied by 2.77 MT CO_{2e}). Operational emissions are also seasonal in nature, mostly occurring during the harvest season. While the BAAQMD’s qualitative operational thresholds do not apply to projects such as the proposed project which do not generate emissions from building energy and transportation, the project’s operational emissions can be considered less than significant when compared to SMAQMD’s operational threshold of 1,100 MT CO_{2e} per year.

Potential construction equipment emissions per acre of vineyard development were derived using the highest emissions results from these EIRs; the Stagecoach North Vineyard EIR anticipated approximately 322 MT CO_{2e} of operational emissions for a 116-acre vineyard, resulting in approximately 2.77 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated that operational equipment emissions associated with the proposed 2.4-acre agricultural development would be approximately 6.65 MT CO_{2e} per year (2.4 multiplied by 2.77 MT CO_{2e}). Like equipment emissions, operational emissions are seasonal in nature, mostly occurring during the harvest season. While BAAQMD does not have a GHG emission threshold for non-building operational emissions, the

¹⁸ As discussed in Section III (Air Quality) variations or similarities in emissions modeling results between the three projects can be attributed to modeling platform and version utilized, variations in modeling assumptions and inputs (such as project acreage and vegetation types removed), and anticipated construction and equipment and duration of use.

project's operational equipment emissions can be considered less than significant when compared to SMAQMD's GHG threshold of 1,100 MT CO_{2e}.

Emissions from Change in Vegetation:

Carbon Stock Emissions: Carbon stock emissions resulting from vegetation removal and soil preparation associated with the proposed and mitigated project scenarios are shown in **Table 7**. Planting new vineyard would add carbon stock to the site following tree removal. In addition, removing 0.1 acre of coast live oak woodland from the proposed project as required by **Mitigation Measure BIO-4** would also increase carbon stock. The project proposes to preserve 1.5 acres of Douglas fir forest, 0.7 acre of Oregon oak, and 0.7 acre of coast live oak on the parcel; however, there is no mechanism proposed to ensure that the preserved areas remain undeveloped, which may result in potentially significant indirect and/or cumulative impacts related to consistency with the State's goal of no net increase in loss of carbon sequestration by 2045. Implementation of **Mitigation Measure GHG-1** below would ensure that 2.3 acres of tree canopy located on developable land¹⁹ is permanently restricted from development through deed restriction, thereby meeting the intent of the no net increase in loss of carbon sequestration goal and would also increase the carbon stock compared to the unmitigated project.

Mitigation Measure GHG-1: The owner/permittee shall revise #P24-00015-ECPA to include the following provisions to reduce potential impacts related to consistency with the State's long-term climate goals of being carbon neutral by 2045:

- a) A Preservation Area, totaling a minimum of 2.3 acres, consisting of a minimum of 1.5 acres of Douglas fir forest, 0.7-acre of Oregon oak, and 0.1-acre of coast live oak shall be designated as such in a deed restriction or other means of permanent protection. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The owner/permittee shall record the deed restriction prior to construction or within 90 days of project approval, whichever comes first. The area to be preserved shall be of like kind and quality to the oak woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property, protects special-status species; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 50%). The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.
- b) Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the development area (typically within approximately 50-feet of the development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c) The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the vineyard conversion area.
- d) In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P21-00064-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for County review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan

¹⁹ "Developable land" refers to land located outside of stream setbacks (NCC Section 18.108.025) and on slopes less than 30% (NCC Section 18.108.060).

shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, this analysis uses the carbon stock factors from the *Regional Carbon Stock Inventory Report for Napa County* to estimate carbon stock in aboveground vegetation and belowground in the soil in the proposed development area. Utilizing these factors and the acreages of existing vegetation types within the proposed development area, total existing carbon stock emissions for the proposed 2.4-acre development area are estimated to be approximately 194.7 MT C or approximately 713.8 MT CO_{2e} (Table 7). This includes carbon stored in aboveground vegetation and belowground in soil. Table 7 also details the changes in total carbon stock from the existing land uses considering both unmitigated and mitigated project scenarios. The unmitigated project includes planting a net 1.9 acres of vineyard in the 2.4-acre development area. The mitigated project includes planting 1.83 net acres of vineyard in a reduced 2.3-acre development area and permanent preservation of additional tree canopy on developable land through **Mitigation Measures BIO-4 and GHG-1**. Total carbon stock of the site under the unmitigated proposed project would be approximately 35.8 MT C or approximately 131.4 MT CO_{2e} while the mitigated project would result in carbon stock of approximately 194 MT C or approximately 711.5 MT CO_{2e}. As shown in Table 7, the unmitigated project would result in a reduction of approximately 158.8 MT C of carbon storage which equates to approximately 582.4 MT CO_{2e} in emissions. With the mitigated project, carbon storage in the project site would increase by approximately 3.2 MT C which accounts for a reduction in emissions to approximately 11.7 MT CO_{2e}.

Table 7 – Project Site Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Project Development Area Acreage	Soil Carbon Storage/Stock per Acre (MT C/acre)	Vegetation Carbon Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage (MT CO _{2e})
Existing					
Forest ¹	2.3	10.87	72.1	190.8	699.7
Woodland ²	0.1	20.12	18.21	3.8	14.1
Existing Totals				194.7	713.8
Unmitigated Project					
Vineyard	1.9	17.08	1.78	35.8	131.4
Forest ¹	0	10.78	72.1	0	0
Woodland ²	0	20.12	18.21 and 24.69	0	0
Other lands ³	0.5	0	0	0	0
Unmitigated Project Totals				35.8	131.4
Change in Carbon Stock in Project Site with Unmitigated Project				-158.8	-582.4
Mitigated Project					
Vineyard	1.83	17.08	1.78	34.5	126.5
Forest ¹	1.5	10.78	72.1	124.3	455.9
Woodland ²	0.8	20.12	18.21 and 24.69	35.2	129.1
Other lands ³	0.47	0	0	0	0
Mitigated Project Totals				194	711.5
Change in Carbon Stock in Project Site with Mitigated Project				-0.7	-2.3

Note: Totals may not add up due to rounding

¹ Includes Douglas fir forest vegetation type

² Includes coast live oak woodland (CLO; 18.21 MT C/acre) and Oregon white oak woodland (OWO; 24.69 MTC/acre) vegetation types. Project proposes removal of 0.1-ac coast live oak woodland. Mitigated project would remove 0.1-ac CLO from project and would preserve 0.7-ac OWO and 0.1-ac CLO.

³ Includes land around net planted vineyard, assumed to have no carbon stock or sequestration

Sources: Table compiled by ESA and Napa County in 2024 based on Regional Carbon Stock Inventory Report for Napa County, August 2023.

Carbon Sequestration Emissions: Emissions associated with change in carbon sequestration due to vegetation change (i.e., the conversion of existing vegetation to vineyard) are presented in Table 8. These estimates are based on the annual carbon sequestration rates in the CALAND report and the 2020 study *Soil organic carbon sequestration rates in*

vineyard agroecosystems under different soil management practices: A meta-analysis.²⁰ Sequestration rates include carbon sequestration in both vegetation and soil. While the removal of existing vegetation in the area would reduce carbon sequestration, development of the proposed vineyard would offset some of that reduction as the vineyard would function as a sink for atmospheric CO₂, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops between vine rows, which are also photosynthetic plants, result in higher soil carbon sequestration rates when compared to conventional vineyard management.²¹ Both the mitigated and unmitigated proposed project scenarios are assumed to use permanent no-tillage cover crops between vine rows.

As shown in **Table 8**, the unmitigated project would result in a net loss in carbon sequestration equivalent to approximately 11.9 MT CO_{2e} per year when compared to existing conditions. However, with implementation of **Mitigation Measures BIO-4 and GHG-1**, carbon sequestration associated with the project would increase equivalent to approximately 0.5 MT CO_{2e} per year.

Table 8 – Change in Carbon Sequestration in the Project Site

Vegetation Type/Carbon Storage	Project Site Acreage ¹	Carbon Sequestration Rate (MT C/acre/year)	Total Carbon Sequestration (MT CO _{2e} /year)
Existing			
Forest ¹	2.3	7.46	17.2
Woodland ²	0.1	1.92	0.2
Existing Totals			17.4
Unmitigated Project			
Vineyard	1.9	2.84	5.4
Forest ¹	0.0	7.46	0.0
Woodland ²	0.0	1.92	0
Other lands ³	0.5	0	0.0
Unmitigated Project Totals			5.4
Change in Carbon Sequestration in Project Site with Unmitigated Project			-11.9
Mitigated Project			
Vineyard	1.83	2.84	5.2
Forest ¹	1.5	7.46	11.2
Woodland ²	0.8	1.92	1.5
Other lands ³	0.47	0	0.0
Mitigated Project Total			17.9
Change in Carbon Sequestration in Project Site with Mitigated Project			0.5

Note: Totals may not add up due to rounding

¹ Includes Douglas fir forest vegetation type

² Includes coast live oak woodland (CLO) and Oregon white oak woodland (OWO) vegetation types, however this distinction is not available in carbon sequestration rates, thus the factor for "woodland" was applied. Project proposes removal of 0.1-ac coast live oak woodland. Mitigated project would remove 0.1-ac CLO from project and would preserve 0.7-ac OWO and 0.1-ac CLO.

³ Includes land around net planted vineyard, assumed to have no carbon stock or sequestration

Source: Table compiled by ESA and Napa County in 2024

Project Emissions:

Based on the above estimates, the unmitigated proposed project is estimated to result in a one-time carbon stock emissions of 582.4 MT CO_{2e} and carbon sequestration emissions of 477.9 MT CO_{2e} over the assumed 40-year lifetime of the project, totaling 1,060.3 MT CO_{2e} in emissions over the project's lifetime (**Table 9**). With the implementation of **Mitigation Measures BIO-4 and GHG-1**, the proposed project is estimated to result in a slight reduction in carbon stock (-0.7 MT C) equivalent to -2.3 MT CO_{2e} compared to the existing condition. With mitigation incorporated, carbon sequestration associated with the proposed project would result in an increase in total reduction in emissions of 20 MT CO_{2e} over the 40-year lifetime of the project. Under the mitigated scenario, the proposed project would reduce

²⁰ Payen et. al. 2020 (<https://www.sciencedirect.com/science/article/abs/pii/S0959652620357826#appsec1>)

²¹ Payen et. al. 2020 (<https://www.sciencedirect.com/science/article/abs/pii/S0959652620357826#appsec1>)

emissions from changes in carbon stock and sequestration by a total of approximately 17.7 MT CO₂e over its lifetime. Negative emissions shown in **Table 9** are due to an increase in carbon sequestration.

Table 9 – Estimated Overall Project-Related GHG Emissions

Source	MT CO ₂ e
Carbon stock emissions from unmitigated project vineyard development	582.4
Carbon sequestration emissions from unmitigated vineyard development ¹	477.9
Unmitigated Project Total	1060.3
Carbon stock emissions from mitigated project vineyard development	2.3
Carbon sequestration emissions from mitigated vineyard development ¹	-20
Mitigated Project Total¹	-17.7

Notes: Totals may not add up due to rounding
¹ estimated over a project lifetime of 40 years
 Source: Table compiled by ESA and Napa County in 2024

With implementation of **Mitigation Measures BIO-4 and GHG-1**, the mitigated proposed project would result in reducing the project site by 0.1 acre and permanently preserving approximately 2.3 acres of tree canopy, including approximately 1.5 acres of Douglas fir forest, 0.7-acre of Oregon oak woodland, and 0.1-acre of coast live oak woodland located on developable land. The carbon stock and sequestration gained from protecting these habitats on otherwise developable land results in the mitigated project increasing the net carbon sequestration associated with the project beyond the no net increase threshold for GHG emissions. Therefore, the proposed project would not have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant with mitigation incorporated.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

Discussion

a-b. Installation of the proposed project and subsequent vineyard operation and maintenance would require a variety of equipment and vehicles that use fuel and other petroleum-based products such as oil and transmission fluids, which are considered hazardous materials. Ongoing vineyard operations would also involve the transport and use of chemicals such as herbicides, mildewcides, and fertilizers to the site that are considered hazardous materials. Herbicide applicators must be licensed by the state, and the Napa County Agricultural Commissioner enforces application of pesticides and regulates applicators.

A detailed listing of fertilizers and other chemicals, application methods, application amounts, number of annual applications, and annual amounts of chemicals that are anticipated to be utilized for ongoing vineyard maintenance and operation of the existing and proposed vineyard is provided within Supplemental Project Information forms on file at the Planning Department.

No onsite storage of hazardous materials is proposed, and materials would be brought in as needed. Chemical mixing or cleaning and washing of chemical application equipment would occur at an existing overhead fill station on site. Fertilizers (i.e., nitrogen, magnesium, boron, and zinc) would be applied via drip and spray up to two times per year. Mildewcides (i.e., wettable sulfur, Sonata) would be sprayed up to eight times per year; no herbicides would be used.

The National Resource Conservation Service recommends a minimum 50-foot-wide vegetated buffer from aquatic resources (such as streams, ephemeral drainages, and wetlands) because under most conditions it is generally an adequate buffer width to provide enough vegetation to effectively entrap and filter chemicals, nutrients, and sediment thereby, facilitating degradation within buffer soils and vegetation (USDA, 2000).

The proposed development area does not contain aquatic resources. Kortum Canyon (Diamond Mountain) Creek is located on the project site, approximately 800 feet south of the proposed development area. Two ephemeral tributaries to Kortum Canyon (Diamond Mountain) Creek also occur south of the proposed development area. Minimum 35-foot stream setbacks has been maintained from the ephemeral drainage closest to the proposed development area in accordance with NCC 18.108.025 (**Exhibit A**). Therefore, no waterways have the potential to be significantly impacted by the proposed project.

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) there are no streams or wetlands located within 50 feet of the proposed development area; and ii) only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. Project approval, if granted, would also be subject to the following standard conditions of approval that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. Impacts related to routine use, transportation, and application of hazardous materials described above are anticipated to be less than significant. The following conditions of approval would be implemented to reduce potential accidental release of hazardous materials, if the project is approved:

Hazardous Materials – Conditions of Approval: The owner/operator shall implement the following BMPs during construction activities and vineyard maintenance and operations:

- Workers shall follow manufacturer’s recommendations on use, storage and disposal of chemical products.
- Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
- During routine maintenance of equipment, properly contain and remove grease and oils.
- Discarded containers of fuel and other chemicals shall be properly disposed of.
- Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
- All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and staging areas shall occur at least 100 feet from watercourses, existing groundwater well(s), and any other water resource to avoid the potential for risk of surface and groundwater contamination.

- To prevent the accidental discharge of fuel or other fluids associated with vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

For these reasons, and with incorporation of the conditions of approval described above, impacts associated with the use, storage, and transport of hazardous materials and accidental release of hazardous materials would be less than significant.

- c. The closest schools, Calistoga Elementary School, Palisades High School, and Calistoga Junior-Senior High School are located approximately 3,980 feet, 4,800 feet, and 5,000 feet northwest of the project site, respectively (Napa County GIS, Schools Layer). There are no schools within 0.25 mile of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer; GeoTracker, 2024). Therefore, no impact would occur.
- e. The project site is neither located within an area covered by an airport land use plan, nor is it within 2 miles of a public, public-use, or private airport (Napa County Airport Land-use Compatibility Plan, 1991). The closest public airport to the project site is Angwin-Parret Airfield located approximately 7.5 miles northeast. Therefore, no impact would occur.
- f. During construction, there would be negligible numbers of workers (up to 10 employees) visiting the project site on a temporary basis to implement the project and install vineyards. Up to 14 employees would also visit the site on a seasonal basis for subsequent vineyard operations; it is anticipated that these employees would be from the same workforce for the existing vineyard on the parcel. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and the impact would be less than significant.
- g. No structures are proposed as part of the project. The project site is located in a State Fire Protection Responsibility Area identified as having high fire severity (Napa County GIS, Fire Hazard Severity Zone; CalFire 2023). However, the risk of fire in vineyards due to the proposed project is low due to the limited amount of fuel, combustibles, and ignition sources that would be present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard may result in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				

- | | | | | | |
|------|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| i. | Result in substantial erosion or siltation on- or off-site; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| ii. | Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iii. | Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| iv. | Impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses to document that sufficient water supplies are available for the proposed project and to implement water saving measures to prepare for periods of limited water supply and to conserve limited groundwater resources.

On June 7, 2022, the Napa County Board of Supervisors provided interim procedures to implement provisions of the Napa County Groundwater Sustainability Plan (GSP) for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use. The direction limits a parcel’s groundwater allocation to 0.3- acre feet per acre per year, or no net increase in groundwater use if that threshold is exceeded already for parcels located in the GSA Subbasin. For parcels not located in the GSA Subbasin (i.e., generally located in the hillsides), a parcel-specific Water Availability Analysis would suffice to assess potential impacts on groundwater supplies. The project well is located outside of the GSA Subbasin.

To assess potential impacts resulting from project well(s) interference with neighboring wells within 500 feet and/or springs within 1,500 feet, the County’s WAA guidance³ requires applicants to perform a Tier 2 analysis where the proposed project would result in an increase in groundwater extraction from project well(s) compared to existing levels.

To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways and those non-navigable tributaries connected to navigable waters, the County’s WAA guidance requires applicants to perform a Tier 3 or equivalent analysis for new or replacement wells, or discretionary projects that would rely on groundwater from existing or proposed wells that are located within 1,500 feet of designated “Significant Streams.”⁴

Public Trust: The public trust doctrine requires the state and its legal subdivisions to “consider,” give “due regard,” and “take the public trust into account” when considering actions that may adversely affect a navigable waterway. (Environmental Law Foundation v. State Water Resources Control Bd.; San Francisco Baykeeper, Inc. v. State Lands Com.) There is no “procedural matrix” governing how an agency should consider public trust uses. (Citizens for East Shore Parks v. State Lands Com.) Rather, the level of analysis “begins and ends with whether the challenged activity harms a navigable waterway and thereby violates the public trust.” (Environmental Law Foundation, 26 Cal.App.5th at p. 403.) As demonstrated in the Environmental Law Foundation vs State Water Resources Control Board Third District Appellate Court Case, that arose in the context of a lawsuit over Siskiyou County’s obligation in administering groundwater well permits and management program with respect to Scott River, a navigable waterway (considered a public trust resource), the court affirmed that the public trust doctrine is relevant to extractions of groundwater that adversely impact a navigable waterway and that Counties are obligated to consider the doctrine, irrespective of the enactment of the Sustainable Groundwater Management Act (SGMA).

On January 10, 2024, Napa County released the Interim Napa County Well Permit Standards and WAA Requirements - January 2024, providing guidance to complying with the Public Trust.

The project site is located in the Kortum Canyon Creek Drainage, part of the Napa River Watershed. Kortum Canyon (Diamond Mountain) Creek, located on the parcel and flows into the Napa River thence San Pablo Bay. The Napa River is currently listed as an impaired waterbody for nutrients, pathogens, and sediment under Section 303(d) of the CWA. Historically, the construction of large dams and other impoundment structures between 1924 and 1959 on major tributaries in the eastern Napa River watershed and northern headwater areas of the Napa River has affected sediment transport processes into the mainstem of the Napa River by reducing the delivery of coarse load sediments to the river (Stillwater Science and W. Dietrich, 2002). However, the finer sediments that are not trapped by dams negatively affect salmonid habitat by reducing gravel permeability potentially affecting special-status fish species (Stillwater Science and W. Dietrich, 2002).

In response, the San Francisco Bay Regional Water Board has implemented the following programs. In 2009 the San Francisco Bay Regional Water Board adopted total maximum daily load (TMDL) for the Napa River (Order #R2-2009-0064), which calls for reductions in the amount of fine sediment deposits into the watershed to improve water quality and maintain beneficial uses of the river, including spawning and rearing habitat for salmonid species. Several watershed stewardship groups have developed management plans and are planning or have implemented large-scale projects to enhance water quality and stream-riparian habitat with the watershed (San Francisco Bay Regional Water Board, 2009).

The nearest blueline stream is Kortum Canyon (Diamond Mountain) Creek, located approximately 800 feet south of the proposed development area in the project site.

- a. Waste discharge is not anticipated as part of the proposed project or ongoing vineyard operations; therefore, the proposed project would not violate waste discharge requirements.

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P24-00015-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

- b. Tier 1 Water Availability Analysis: A Tier 1 WAA was prepared to determine if the proposed increase in groundwater demand as a result of the proposed project would result in a significant impact to groundwater supplies. The Tier 1 WAA estimates the onsite groundwater recharge and both existing and proposed groundwater use to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Document adopted by the County on May 12, 2015.

Existing onsite water demands consist of 11.23 AF/yr of groundwater for irrigation of the existing vineyard and orchard, and residential and winery demands. Approximately 3.74 AF/yr are supplied by the existing "New Well" and 7.49 AF/yr are supplied by the offsite well. With the proposed development of 1.9 net acres of new vineyard, water demand would increase by approximately 1.31 AF/yr, for a total onsite water demand of approximately 12.54 AF/yr. The project proposes development of a new "Future Well" on the project parcel that would meet the existing demand on the offsite well as well as the demand from the proposed vineyard, for a total water demand of 8.8 AF/yr. There would be no net increase in demand on the existing onsite "Old Well" or "New Well."

Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the project aquifer recharge area that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the WAA estimated the average annual groundwater recharge to be approximately 13.61 AF/yr, which uses an average annual rainfall of 32.58 inches per year over an approximately 35.81 acre aquifer recharge area (i.e., the project site) and a 14% deep percolate recharge estimate, excluding land occurring on slopes over 30% (see **Exhibit D** for details and calculations). The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall between 2012 and 2021 (10 recent years), and therefore inherently includes drought year conditions. The estimated annual future groundwater

demand (with the proposed project) in the project well recharge area of 12.54 AF/yr is below the estimated average annual recharge volume of 13.61 AF/yr identified in the WAA. Less than significant impacts would result.

While the total estimated demand (with the proposed project) for the parcel is within the total estimated average annual recharge, the total estimated demand would utilize approximately 92% of the parcel's total estimated average recharge. In cases where the proposed and existing demand would result in the future demand exceeding 90% of a parcel's annual recharge, the County's practice to ensure that the proposed and entitled water demand(s) does not exceed the annual recharge is to require that the project well has a meter installed and that monitoring reports are provided to the County to confirm the supply is within the approved limits. As such, the following condition of approval would be applied to the project, if approved:

Condition of Approval: Groundwater Management – Wells

- a) The Owner/Permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly) for the "Future Well." Such data shall be provided to the County, if the PBES Director determines that substantial evidence indicates that water usage is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.
- b) In order to support the County's groundwater monitoring program, well monitoring data as discussed above shall be provided to the County if the PBES Director determines that such data could be useful in supporting the County's groundwater monitoring program. The project well shall be made available for inclusion in the groundwater monitoring network if the PBES Director determines that the well could be useful in supporting the program.
- c) In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Erosion Control Plan #P24-00015-ECPA would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the owner/permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Code and to protect public health, safety, and welfare.
- d) No new on-site or off-site water sources (other than those evaluated as part of this ECPA) proposed to be used for the vineyard, including but not limited to wells, imported water, new or existing ponds/reservoir(s) or other surface water impoundments, to serve the vineyard, shall be allowed without additional environmental review, if necessary, and may be subject to a modification to this ECPA. A new Water Availability Analysis shall be required prior to approval of any new water source(s) on the property.
- e) Permittee shall limit groundwater use supplied by the "Future Well" to 8.8 acre-ft. per year. Any exceedance of this amount in a calendar year is a material breach of this ECPA.
- f) If water use from the well(s) exceeds 8.8 acre-feet in a calendar year by 10% or more (a significant exceedance), the permittee shall both immediately notify the County and cease any activity causing the exceedance, shall begin daily well monitoring, and shall promptly prepare a report to be submitted to the PBES Director regarding the reasons for the significant exceedance and the measures immediately taken and to be taken to bring the significant exceedance into compliance with this condition.
- g) If the water use from the well(s) exceeds 8.8 acre-ft. in a calendar year by less than 10%, the permittee shall notify the County, and promptly provide a report of the following:
 - 1. water volume used;
 - 2. the reason for exceedance;
 - 3. the plan the winery has for reducing water use so as not to exceed the allocation the following year; and
 - 4. other information that may be affecting water use.

- h) The permittee shall be required to include the well in the County's Groundwater Monitoring program upon the County's request.

Tier 2 Water Availability Analysis: According to the County's WAA Guidelines (Napa County, 2015), if a project well is located within 500 feet of neighboring well(s), or within 1,500 feet of a spring used for water supply, a Tier 2 WAA (Well and Spring Interference) is required. According to the WAA prepared for this proposed project, there are no active offsite wells known to exist within 500 feet of the proposed Future Well (i.e., project well), and no springs used for water supply purposes known to exist within 1,500 feet of the proposed project well; therefore, a Tier 2 WAA is not required for the proposed project or project well.

Tier 3 Water Availability Analysis: The proposed vineyard would be irrigated using groundwater supplied by a proposed groundwater well that would be located on the northern boundary of proposed vineyard Block 1. Existing vineyard is irrigated from one of the two existing wells ("Old Well" and "New Well") and from an offsite well on a neighboring property. Once the "Future Well"; (i.e., project well) is constructed, it would replace water supplied by the offsite well. The portion of the existing water demands reportedly met by the existing "New Well" would not change (i.e., no net increase) in the future. The "Old Well" would remain available as an emergency backup supply to the "New Well." Groundwater is proposed to be used for heat protection, but not for frost protection. No municipal water or surface water would be used on the vineyard.

Tier 3 Water Availability Analysis: A Tier 3 review is the County's adopted method for complying with its duties under the Public Trust Doctrine. The proposed project well would be located approximately 985 feet north of Kortum Canyon (Diamond Mountain) Creek; therefore, a Tier 3 analysis was prepared (Richard C. Slade and Associates, January 2024 – **Exhibit D**). As discussed herein, the Future Well (i.e., project well) will comply with the WAA Guidance document because observations and data discussed in the report support the assertion that the project well does not have a hydraulic connection to Kortum Canyon (Diamond Mountain) Creek. This lack of hydraulic connection is demonstrated by the following:

- The Napa Valley Groundwater Sustainability Plan depicts the section of Kortum Canyon (Diamond Mountain) Creek near the project site without any "simulated average annual hydraulic connectivity."
- In the immediate vicinity of the project site, available observations suggest that the intermittent presence of surface water in Kortum Canyon (Diamond Mountain) Creek is probably controlled by direct precipitation, surface runoff, and possibly upstream dam releases; but it is not controlled by groundwater that is accessible to wells perforated primarily in the rocks of the Sonoma Volcanics.
- During the May 2023 site visit by Richard C. Slade and Associates, the water level in one of the relatively shallow well on the project site ("Old Well") was observed to be lower in elevation than the artesian above-ground-surface water level in the much deeper existing well ("New Well"). This observation, when considered in conjunction with the reported construction depths of these adjacent wells, supports the interpreted existence of a confining region between the shallower sediments accessible to the Old Well, in which Kortum Canyon (Diamond Mountain) Creek is bedded, and the deeper earth materials accessible to the existing New Well (primarily the Sonoma Volcanics).
- The casing perforations for the proposed well would be lower in elevation than the interpreted bottom depth of the sedimentary materials in the vicinity of the project site. The perforations of the proposed well would also be more than 110 feet lower in elevation than the bed of the nearest portion of Kortum Canyon (Diamond Mountain) Creek.
- The proposed well ("Future Well" i.e., project well) would be constructed into and extract groundwater exclusively from the rocks of the Sonoma Volcanics, from subsurface elevations comparable to the perforations of the existing New Well. With this construction, the proposed project well would not be in direct hydraulic communication with Kortum Canyon (Diamond Mountain) Creek, because it has been demonstrated that a significant hydraulic connection does not exist between the sediments in which Kortum Canyon (Diamond Mountain) Creek is bedded and groundwater that would be accessible to the proposed well.

Given the demonstrated lack of hydraulic connectivity between the proposed Future Well and the County-designated Significant Stream, the project would result in less than significant impacts related to groundwater/surface water interaction. The County has satisfied its duty to consider impacts to trust resources and no further analysis is required.

Considering: i) anticipated annual water use of the proposed project and project well groundwater recharge area of approximately 12.54 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 13.61 AF/yr; ii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; iii) the “Future Well” (i.e., project well) would be capable of meeting the demand for the proposed project and would be conditioned to provide well monitoring reports to the County to ensure that water use does not exceed recharge capacity; iv) there are no offsite wells within 500 feet of the project well; iv) there is no hydraulic connection between the project well and the significant stream located within less than 1,500 feet from the project well, as discussed above, the proposed project (if approved) would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

- c. Earthmoving activities have the potential to alter the natural pattern of surface runoff, which could lead to areas of concentrated runoff and/or increased erosion. The conversion of existing vegetation to vineyard would alter the composition of the existing land cover and infiltration rates, which could affect erosion and runoff. The proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of impervious surfaces that would concentrate runoff. The project site is not located in an area of a planned stormwater drainage system, nor is it not directly served by a stormwater drainage system.

Erosion control measures and plan features that are not anticipated to affect drainage patterns but would assist in minimizing the potential for increased erosion and water runoff include establishment of a no-till cover crop with vegetative cover density minimum densities of 85% for proposed vineyard Blocks 1 and 2, and the application of straw mulch cover on all disturbed areas as needed to achieve the required coverage. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibit E** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include sediment barriers, erosion control blankets, water bars, rolling dips, storm drain pipes, energy dissipaters, straw mulch and a permanent vineyard cover crop. These proposed erosion control measures are not anticipated to significantly alter the existing topography or drainage patterns of the project site, or direct surface flows into other watersheds (as further described below). As discussed in **Section VII (Geology and Soils)**, erosion control features would maintain soil losses below the tolerable levels for the soil types found on the project site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs as a result of the proposed project, and that the proposed project is anticipated to decrease soil loss as compared to existing conditions.

A Hydrologic Analysis for the proposed project was prepared by David A. Steiner, CPESC, CPWSWQ and Applied Civil Engineering (May 2023 – **Exhibit E**). The Hydrology Report used the USDA Technical Release (TR-55) modeling to compare the pre- and post-development peak stormwater runoff rates from the proposed development area for the 2-year, 10-year, 50-year, and 100-year, 24-hour design storms. The development area contains two watershed basins which total approximately 14.3 acres. The analysis concluded that there would be no change in runoff time of concentration for sub-watershed C; however, for Watershed AB, the analysis showed that the project would result in an increase in peak flows when compared to pre-project conditions. To eliminate this increase (i.e., extend the time of concentration) the project would temporarily store runoff volume in a buried 36” pipe (retention structure) that is 50 linear-feet long and located (downhill) of the southwest boundary of proposed Block 1, where the predicted increase originates. A sub-watershed was designated as B-1 and was modeled for peak flows to be temporarily retained in the retention structure (**Table 10**).

Table 10 – Hydrologic Modeling Calculations (TR-55) Results: Runoff Rates

Watershed	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Kortum Canyon (Diamond Mountain) Creek AB				
Pre-project conditions	1.84	4.74	7.95	9.33
Post-project conditions	1.84	4.63	7.70	9.01
Change (cfs)	0	-0.11	-0.25	-0.32
Change (%)	0%	-2%	-3%	-3%
Sub-Watershed B-1				

Watershed	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Post-project conditions	0.61	1.24	1.88	2.15
Kortum Canyon (Diamond Mountain) Creek C				
Pre-project conditions	0.64	1.37	2.14	2.46
Post-project conditions	0.64	1.37	2.14	2.46
Change (cfs)	0	0	0	0
Change (%)	-0%	-0%	-0%	-0%

Source: Applied Civil Engineering, May 2023 (Exhibit E)

Following implementation of the specified retention structure in Watershed AB (sub-area B-1) and adherence to the other erosion control specifications of the ECPA (as described above, and in **Exhibit A**), the proposed project would result in no increase in peak flow or runoff compared to pre-project conditions, consistent with General Plan Policy CON-50c. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and sedimentation is anticipated under post-project conditions. In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation), projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.²² Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less than significant impact.

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan-Safety Element, 2023). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the ECP to area watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact on or offsite water resources. Because the proposed project as designed is not expected to increase overall runoff rates or decrease times of concentration in relation to existing conditions (as discussed in Question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 4.78 tons per acre per year, have no negative effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

²² Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted, as indicated in **Section VII (Geology and Soils)**.

Furthermore, project approval, if granted, would be subject to the following condition of approval, which would further reduce and avoid potential impacts to water quality as a result of the proposed project and ongoing operations.

Water Quality – Condition of Approval: The owner/permittee shall refrain from disposing of debris, storage of materials, or constructing/operating the vineyard, including vineyard avenues, outside the boundaries of the approved plan, or within required setbacks pursuant to Napa County Code Section 18.108.025 (General Provisions – Intermittent/perennial streams). Furthermore, consistent with the standard conditions identified in the **Hazards and Hazardous Materials Section (Section IX)**, all operational activities that include the use or handling of hazardous materials, such as but not limited to agricultural chemical storage and washing, portable restrooms, vehicular and equipment refueling/maintenance and storage areas, soil amendment storage and the like, shall occur at least 100 feet from groundwater wells, watercourses, streams and any other water resource to avoid the potential risk of surface and groundwater contamination, whether or not such activities have occurred within these areas prior to this ECPA approval.

Therefore, the proposed project as designed, in conjunction with identified conditions of approval, would not adversely conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a. The project site is located on Diamond Mountain Road and the nearest established community is Calistoga, approximately 0.5-mile northwest of the project site. Existing improvements on the project site include a driveway, several dirt and gravel roads, a 25,000-gallon winery, a single family residence, two groundwater wells, water tanks and the related structural outbuildings and utility infrastructure that is typical of this type of rural residential and agricultural development. Surrounding areas contain agricultural and rural residential areas. Therefore, the proposed vineyard and subsequent vineyard operations are consistent with surrounding land uses and would not physically divide an established community and no impact would occur.
- b. The project site is zoned as Agricultural Watershed and is designed under the Napa County General Plan as Agricultural, Watershed and Open Space. Surrounding parcels are also zoned Agricultural Watershed in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

The proposed project has been analyzed for consistency with applicable sections of the NCC and with the Napa County General Plan. With inclusion of the mitigation measure and conditions of approval, the proposed project has been found consistent with applicable code requirements and General Plan Goals and Policies, including but not limited to the following:

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils) and X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 4.78 tons per acre per year and maintain runoff conditions as compared to existing conditions.

- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and reduce runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1 through BIO-4** is consistent with Policies CON-13, CON-16 and CON-17 which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources, as well as the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities. A Biological Resources Survey Report was prepared for the proposed project (**Exhibit B**). The project as proposed would minimize potential direct, indirect, and cumulative impacts to special-status species and associated habitat occurring in the project site with implementation of **Mitigation Measures BIO-1 through BIO-4**. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that impacts to special-status species and their habitat can be minimized.
- With implementation of **Mitigation Measures BIO-1 through BIO-4**, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife movement would not be impaired.
- The project site does not contain wetlands within its boundaries and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development to be no greater than pre-project conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, with incorporation of the Permanent Erosion and Runoff Control Measures condition of approval, the proposed project would reduce soil loss and sedimentation and would not increase runoff.
- The proposed project is consistent with Policy CON-65b. Following incorporation of **Mitigation Measure GHG-1**, the proposed project's construction and operational GHG emissions are anticipated to be less than significant, as disclosed in **Section VIII (Greenhouse Gas Emissions)**.
- The proposed project is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The proposed project is consistent with the General Plan land use designation of AWOS and is therefore consistent with Policy AG/LU-20.

For these reasons, the proposed project, with the mitigation measure and conditions of approval incorporated, would not conflict with applicable County regulations, policies, or goals, and is anticipated to have a less than significant impact with respect to applicable County regulations, policies, or goals.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				

- a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2, 2-3 and Map 2-1, 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resources area in Napa County is the Napa Quarry, located approximately 26 miles southeast of the project site. Proposed development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b. The project site is located in a rural setting where surrounding parcels are generally undeveloped grasslands and woodlands interspersed with vineyards, wineries, and rural residences. The nearest residence to the project site is located approximately 780 feet southeast of the project site.

Activities associated with installation of the proposed project, including earthmoving, and subsequent vineyard operations, could generate noise levels above existing conditions. Several types of equipment would be necessary for implementation and operation of the proposed project, including bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicles and/or light trucks. **Table 11** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 11**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 11 – Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source	Equipment	Typical Noise Level (dBA) 50 feet from Source
Backhoe	80	Roller/Sheep's foot	74
Bulldozer	85	Scarifier	83

Chainsaw	86	Scraper	89
Compactor	82	Shovel	82
Excavator/Shovel	82	Spike driver	77
Grader	85	Truck	88
Loader	85	Wood chipper	89

Sources: Cowan 1994, Federal Transit Administration 1995, Nelson 1987, United States Department of Agriculture Forest Service 1980, and Napa County Baseline Date Report Chapter 6 (Noise Resources), November 2005 (Version 1)

Table 12 characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA.

Table 12 – Estimated Distance to dBA Contours from Construction Activities¹

Distance from Construction Source	Calculated Noise Level
50 feet	90 dBA
180 feet	75 dBA
300 feet	70 dBA
450 feet	65 dBA
700 feet	60 dBA
1,100 feet	55 dBA
1,700 feet	50 dBA

¹ Based on a source noise level of 90 dBA

Source: Napa County Baseline Date Report, Noise Section Table 6-13, Version 1, November 2005

Based on distances to existing residences, noise associated with project construction would be between approximately 55 and 60 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, chapter 6, 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as track and rubber wheel farming tractors and equipment, which would occur on a temporary and seasonal basis. **Table 13** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 13 – Estimated Distance to dBA Contours from Farming Activities¹

Distance from Farming Source	Calculated Noise Level
50 feet	84 dBA
115 feet	75 dBA
175 feet	70 dBA
275 feet	65 dBA
400 feet	60 dBA
650 feet	55 dBA
1,000 feet	50 dBA

¹ Based on a source noise level of 84 dBA.

Source: Napa County Baseline Date Report, Noise Section Table 6-14, Version 1, November 2005.

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be between 50 and 55 dBA at the closest existing offsite residence.

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of between approximately 55 and 60 dBA, noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts

agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less-than-significant impact on ambient noise levels of the area.

During site preparation and vineyard installation, the use of heavy equipment could result in a temporary increase in ambient noise levels in the vicinity of the project site as described above. Compliance with measures identified in the County's noise ordinance for construction-related noise, such as a limitation of hours of construction activity and muffling of equipment, would result in temporary less-than-significant noise and vibration impacts, and would result in no permanent increase in ambient noise levels in the vicinity of the proposed project in excess of County standards.

The project site is neither located within an area covered by an airport land use plan, nor is it within 2 miles of a public, public-use, or private airport (Napa County Airport Land-use Compatibility Plan, 1991). The closest airfield, Angwin-Parret Airfield, is located approximately 7.5 miles northeast. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of vineyard. It does not involve the construction of new homes, businesses, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of workers to the project site on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the project vicinity or greater region, either directly or indirectly. No impact would occur.
- b. The proposed project would not displace any existing housing or people, and it does not involve the construction of new homes. The closest residence is located approximately 780 feet to the southeast. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				

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

i.	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii.	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii.	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv.	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v.	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a. The proposed project does not include the construction of residential or commercial structures, as discussed in **Section XIV (Population and Housing)**, resulting in no substantial population growth in the area. It is anticipated that these temporary workers would come from the existing labor pool in the local region and would not result in an increase in population over existing conditions. As a result, there would be no need to construct any new government facilities. Therefore, there would be no change in the demand for the listed services and amenities. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a-b. The proposed project does not include any recreational facilities. As discussed in **Sections XIV (Population and Housing)** and **XV (Public Services)**, the proposed project would not result in substantial population growth, resulting in no increase in the use of recreational facilities and requiring no construction or expansion of recreational facilities. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion

a-b. As part of the statewide implementation of Senate Bill (SB) 743, the Governor's Office of Planning and Research (OPR) settled upon automobile vehicle miles of travel (VMT) as the preferred metric for assessing passenger vehicle-related impacts under CEQA and issued revised CEQA Guidelines in December 2018, along with a Technical Advisory on Evaluating Transportation Impacts in CEQA to assist practitioners in implementing the CEQA Guidelines revisions.

The County's General Plan Circulation Element contains a policy statement (Policy CIR-7) indicating that the County expects development projects to achieve a 15% reduction in project-generated VMT to avoid triggering a significant environmental impact. Specifically, the policy directs project applicants to identify feasible measures that would reduce their project's VMT and to estimate the amount of VMT reduction that could be expected from each measure. The policy states "projects for which the specified VMT reduction measures would not reduce unmitigated VMT by 15 or more percent shall be considered to have a significant environmental impact." That policy is followed by an action item (CIR-7.1) directing the County to update its CEQA procedures to develop screening criteria for projects that "would not be considered to have a significant impact to VMT" and that could therefore be exempted from VMT reduction requirements.

The new CEQA Guidelines and the OPR Technical Advisory note that CEQA provides a categorical exemption (Section 15303) for additions to existing structures of up to 10,000 square feet, so long as the project is in an area that is not environmentally sensitive and where public infrastructure is available. OPR determined that "typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract 110-124 trips per 10,000 square feet." They concluded that, absent substantial evidence otherwise, the addition of 110 or fewer daily trips could be presumed to have a less-than-significant VMT impact.

The County maintains a set of Transportation Impact Study Guidelines (Napa County TIS Guidelines, 2022) that define situations and project characteristics that trigger the need to prepare a TIS. The purpose of a TIS is to identify whether the project is likely to cause adverse physical or operational changes on a County roadway, bridge, bikeway or other transportation facility, to determine whether the project should be required to implement or contribute to improvement measures to address those changes, and to ensure that the project is developed consistent with the County's transportation plans and policies. Per the County's current TIS Guidelines, a project is required to prepare a TIS if it generates 110 or more net new daily vehicle trips.

The TIS Guidelines also include VMT analysis requirements for projects based on trip generation, which includes a screening approach that provides a structure to determine what level of VMT analysis may be required for a given project. For a new project that would generate less than 110 net new daily vehicle and truck trips, not only is the project not required to prepare a TIS, but it is also presumed to have a less-than-significant impact for VMT. However, applicants are encouraged to describe the measures they are taking and/or plan to take that would reduce the project's trip generation and/or VMT. Projects that generate more than 110 net new passenger vehicle trips must conduct a VMT analysis and identify feasible strategies to reduce the project's vehicular travel; if the feasible strategies would not reduce the project's VMT by at least 15%, the conclusion would be that the project would cause a significant environmental impact.

Currently, the project site includes a driveway, dirt and gravel roads, approximately 16 acres of existing vineyard, a 0.5-acre orchard, a winery, a single-family residence, two groundwater wells, water tanks and related structural outbuildings and utility infrastructure. The project site is accessed from an existing private driveway off Diamond Mountain Road. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to 20 vehicle trips per day during construction, including truck trips for equipment supply and delivery. After vineyard installation, operational trips that include, but are not limited to, irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vineyard inspection, are anticipated to generate up to four round trips per day. During peak operations for activities such as vineyard pruning, weed and pest control, and harvest, the project is anticipated to generate up to ten round trips per day, including grape haul trucks. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance would also be intermittent during the non-peak hours, generally arriving between 2 a.m. and 4 a.m. and departing between 7 a.m. and 9 a.m.

Because the proposed project would be expected to generate up to approximately 20 daily round trips during construction and up to ten daily round trips for ongoing operations and maintenance, below the 110-trip threshold in the Office of Planning and Research guidelines and the County's TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant. Further, operational trips are not anticipated to increase because of the project due to the existing vineyard on the property.

- c. The proposed project would use the existing private driveway off Diamond Mountain Road for project development. The proposed project does not include roadway improvements and/or modifications to the existing driveway or Diamond Mountain Road or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the project site and other Agricultural Watershed zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less than significant impact.
- d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX (Hazards and Hazardous Materials)**, for additional discussion related to emergency access.
- e. The proposed project would generate its largest demand for parking (approximately ten vehicles) during harvest, which would occur over five days. Current county ordinances do not require formal parking for agricultural projects. Parking within the proposed staging area and/or along proposed vineyard avenues would satisfy parking demands of project installation and subsequent vineyard operations. Therefore, no parking impacts are anticipated.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion

a-b) Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on February 21, 2024. On February 23, 2024, the County received a response from Middletown Rancheria requesting consultation. On March 29, 2024, the Yocha Dehe Wintun Nation responded that the project site is not within the aboriginal territories of the Tribe, and therefore the invitation for consultation was declined and correspondence was deferred to the Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria. The Mishewal Wappo Tribe responded via telephone call on March 26, 2024 that the Tribe would like to consult on the project. On April 2, 2024, Middletown Rancheria deferred consultation to Mishewal Wappo. The County sent a consultation closure notices to Middletown Rancheria and Yocha Dehe on September 3, 2024. On January 12, 2025, the Mishewal Wappo provided direction on recommended language for measures to be incorporated in the project to ensure less than significant impacts would result from project activities. On February 21, 2025, the County sent a consultation closure notice to the Mishewal Wappo Tribe.

Due to the possibility of unearthing tribal cultural resources which include, but is not limited to, Native American human remains, funerary objects, items or artifacts, sites, features, places, landscapes or objects with cultural values to the Mishewal Wappo Tribe of Alexander Valley ("Tribe"), implementation of the project as proposed would result in potentially significant impacts on Tribal Cultural Resources. Implementation of **Mitigation Measure TCR-1** would ensure that the project proponent enters into agreement with the Tribe to provide cultural sensitivity training, to have a Tribal Cultural Advisor on site to monitor all earthmoving activities, and to stop work if resources are found. Implementation of **Mitigation Measure TCR-1** would reduce potential impacts on tribal cultural resources to a less than significant level

Mitigation Measure TCR-1:

- a. The Project owner/permittee must meet and confer with the Mishewal Wappo Tribe at least 45 days prior to commencing ground disturbance activities on the Project to address notification, protection, treatment, care, and handling of tribal cultural resources potentially discovered or disturbed during ground disturbance activities of the Project. All potential cultural resources unearthed by Project activities shall be evaluated by the project Tribal Cultural Advisor. The Tribe must have an opportunity to inspect and determine the nature of the resource and the best course of action for avoidance, protection and/or treatment of tribal cultural resources to the extent permitted by law. If the resource is determined to be a tribal cultural resource of value to the Tribe, the Tribe will coordinate with the Project owner/permittee to establish appropriate treatment and disposition of the resources with appropriate dignity which may include reburial or preservation of resources. The Project owner/permittee must facilitate and ensure that the determination of treatment and disposition by the Tribe is followed to the extent permitted by law. No laboratory studies, scientific analysis, collection, curation, or video recording are permitted for tribal cultural resources without the prior written consent of the Tribe.
- b. Prior to initial ground disturbance, the owner/permittee shall retain a project Tribal Cultural Advisor designated by the Tribe, to direct all mitigation measures related to tribal cultural resources.
- c. All on-site personnel of the Project shall receive adequate cultural resource sensitivity training approved by the project Tribal Cultural Advisor or his or her authorized designee prior to initiation of ground disturbance activities on the Project. The training must also address the potential for exposing subsurface resources and procedures if a potential resource is identified. The Project owner/permittee shall coordinate with the Tribe on the cultural resource sensitivity training.
- d. Ground disturbing activities occurring in conjunction with the Project including surveys, testing, concrete pilings, debris removal, rescrapes, punch lists, erosion control, mulching, waddles, hydroseeding, etc., pot-holing or auguring, boring, grading, trenching, foundation work and other excavations or other ground disturbance involving the moving of dirt or rocks with heavy equipment or hand tools within the Project area shall be monitored on a full-time basis by qualified tribal monitor(s) approved by the Tribe. The tribal monitoring shall be supervised by the project Tribal Cultural Advisor. Tribal monitoring should be conducted by qualified tribal monitor(s) approved by the Tribe, who is defined as qualified individual(s) who has experience with identification, collection and treatment

of tribal cultural resources of value to the Tribe. The duration and timing of the monitoring will be determined by the project Tribal Cultural Advisor. If the project Tribal Cultural Advisor determines that full-time monitoring is no longer warranted, he or she may recommend that tribal monitoring be reduced to periodic spotchecking or cease entirely. Tribal monitoring shall be reinstated in the event of any new or unforeseen ground disturbances or discoveries.

- e. The project Tribal Cultural Advisor and tribal monitor(s) may halt ground disturbance activities in the immediate area of discovery when known or suspected tribal cultural resources are identified until further evaluation can be made in determining their significance and appropriate treatment or disposition. There must be, at minimum, one tribal monitor for every separate area of ground disturbance activity that is at least 30 meters or 100 feet apart unless otherwise agreed upon in writing between the Tribe and owner/permittee. Depending on the scope and schedule of ground disturbance activities of the Project (e.g., discoveries of cultural resources or simultaneous activities in multiple locations that requires multiple tribal monitors, etc.) additional tribal monitors may be required on-site. If additional tribal monitors are needed, the Tribe shall be provided with a minimum of three (3) business days advance notice unless otherwise agreed upon between the Tribe and owner/permittee. The on-site tribal monitoring shall end when the ground disturbance activities are completed, or when the project Tribal Cultural Advisor have indicated that the site has a low potential for tribal cultural resources.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater, and groundwater would provide irrigation water to the vineyard (see the Groundwater Management, Wells conditions of approval in **Section X [Hydrology and Water Quality]**). Irrigation

pipelines would be located in existing roads, vineyards and vineyard avenues, and/or within the proposed development area.

The proposed project also would include the installation of a limited number of onsite storm water drainage features such as rolling dips, storm drain pipes, energy dissipaters, stray mulch and a permanent vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage features is described in **Sections IV (Biological Resources), VII (Geology and Soils), and X (Hydrology and Water Quality)**. As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in **Sections III (Air Quality), V (Cultural Resources), IX (Hazardous and Hazardous Materials), and XVIII (Tribal Cultural Resources)** would result in a less-than-significant impact.

- b. Typically, the annual irrigation season ranges from late May to September. The WAA prepared by Richard C. Slade and Associates (**Exhibit D**) concluded that after full development, total long-term groundwater demand for the project site with the new 1.9 net acres of vineyard would be 12.54 AF/yr from one existing groundwater well and a proposed well. Based on the 10-year average annual rainfall of 32.58 inches for the project area and estimated recharge, the annual recharge rate for the project site's recharge area was calculated to be 13.61 acre-feet per year. The project groundwater recharge area's estimated groundwater demand 12.54 AF/yr with the proposed project represents approximately 92% of the average annual groundwater allotment. Napa County Board of Supervisors recently mandated enhanced regulations that propose groundwater use not exceed the recharge rate. Therefore, the proposed project would be consistent with this regulation and would have a less-than-significant impact on water supplies. Water availability and water use are discussed in greater detail in **Section X (Hydrology and Water Quality)**.
- c. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.
- d-e. Rock removed during vineyard development would be used within the proposed development area and for the proposed erosion control features. Solid waste generated during construction activities (e.g., trash, discarded building materials, debris, etc.) would be negligible and would be cleared daily, or as necessary. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of onsite by spreading it back into the vineyard, burning it in accordance with BAAQMD regulations, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as High Fire Hazard Severity Zone (CalFire, Fire Hazard Severity Zone 2022; Napa County GIS Fire Hazard Severity Layer). The topography of the project site is characterized by moderate to steep slopes with slopes in the area ranging from 0% to 50%. Slopes within the proposed development area range from 11% to 18%.

- a. Project construction and operation would not require any road closures and would not substantially increase traffic in the area compared to current conditions. Existing roads would continue to provide adequate emergency access to the project site. Therefore, the proposed project would not impact an adopted emergency response plan or emergency evacuation plan; no impact would occur. Refer to **Section IX (Hazards and Hazardous Materials)** for additional discussion related to emergency access.
- b-c. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary during project construction. The proposed project does not include any infrastructure that would exacerbate fire risk. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk, and this impact would be less than significant.
- d. Although the proposed project would alter land cover, temporary and permanent erosion control measures would be implemented for the proposed project which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would not be an increase in peak flow in the development area (see **Section X [Hydrology and Water Quality]**). Therefore, there are no structures or people that would be exposed to downslope or downstream flooding or landslides and the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

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

Discussion

Project impacts have been analyzed to determine potential project-specific and cumulatively considerable significant impacts. All areas of impact analysis were found to have a less-than-significant negative effect on the environment or human beings due to project design with incorporation of identified mitigation measures and conditions of approval.

- a. As discussed in this Initial Study, implementation of #P24-00015-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment. Habitat for special-status bird and bat species have been identified in the project site, and there are 2.3 acres of coniferous forest within the proposed development area which has the potential to impact northern spotted owl. Implementation of **Mitigation Measures BIO-1, BIO-2 and BIO-3** would reduce potential impacts to bats and special-status and protected bird species and northern spotted owl to a less than significant level. The proposed development area contains coast live oak woodland; with incorporation of **Mitigation Measure BIO-4**, the coast live oak woodland would be avoided.

No new wildlife exclusion fencing around the proposed vineyard blocks is proposed; however, existing fencing would be relocated to the property line. Given the relatively small size of the project site (relative to existing wildlife corridors), agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. As such, the proposed project would not introduce any new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant, and the range of special-status plant species would not be restricted, cumulative impacts are anticipated to be less than significant.

To reduce impacts on water quality within streams, the proposed project has been designed to avoid the closest ephemeral drainage with minimum 35-foot setbacks in accordance with NCC 18.108.025.

Incorporation of **Mitigation Measure GHG-1** would result in the parcel having an increase in carbon sequestration post-project by ensuring that a minimum of 2.3 acres of tree canopy (i.e., 1:1 removal to preservation ratio) located on developable land is permanently preserved (i.e., restricted from development). Implementation of **Mitigation Measure GHG-1** would result in the project being consistent with the State's goal of no net increase in carbon sequestration loss by 2045, and less than significant on the quality of the environment as related to greenhouse gas emissions.

With the incorporation of **Mitigation Measure TCR-1**, which would require that the project applicant enter into agreement with the Mishewal Wappo Tribe to provide cultural sensitivity training and monitoring by a Tribal Cultural Advisor. With incorporation of **Mitigation Measure TCR-1** and standard conditions to protect cultural and tribal cultural resources that may be discovered accidentally, less than significant impacts to cultural and tribal cultural resources are expected (**Section V [Cultural Resources]** and **XVIII [Tribal Cultural Resources]**).

Therefore, with the incorporation of **Mitigation Measures BIO-1 through BIO-4, GHG-1 and TCR-1** and conditions of approval, the proposed project would have a less than significant potential to degrade the quality of the environment.

- b. The project site is located in the Kortum Canyon Creek drainage within the Napa River watershed. The Kortum Canyon Creek drainage area contains approximately 1,852 acres. In 1993, vineyard acreage within this drainage was approximately 264 acres, or 14% of the drainage. Since 1993, approximately 83 acres of additional vineyard (or 4% of the drainage) have been developed to vineyard, resulting in approximately 19% of the drainage (or approximately 347 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Kortum Canyon drainage, that there are approximately 362 acres (20% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 347 acres), results in a total potential build out of approximately 709 acres or approximately 38% of the drainage. The Potentially Productive

Soils layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however, this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

While it is not possible to precisely quantify the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Kortum Canyon Creek drainage) over the last 31 years (1993-2024) were used to project an estimation of vineyard development for the next three to five years. Over the past 31 years within the Kortum Canyon Creek drainage, approximately 3 acres of vineyard was developed per year (83 divided by 31). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 9 to 15 acres over the next three to five years within the Kortum Canyon Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG – Sections III and VIII:

The proposed project (#P24-00015-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended PM and equipment exhaust emissions. As discussed in **Section III (Air Quality)** and shown in **Table 4** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less-than-significant air quality effects of the proposed project and ongoing operation. While BAAQMD has no quantitative GHG threshold for comparison, the project's construction and operational equipment emissions are well below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e} and can be considered less than significant.

Based on the estimates in **Tables 7 and 8**, the unmitigated proposed project is estimated to result in one-time carbon stock emissions of 582.4 MT CO_{2e} and carbon sequestration emissions of 11.9 MT CO_{2e} over the assumed 40-year lifetime of the project, totaling 1060.3 MT CO_{2e} of emissions over the project's lifetime (**Table 9**). With the implementation of **Mitigation Measures BIO-4 and GHG-1**, the proposed project is estimated to result in a slight increase in carbon stock 3.2 MT C) equivalent to a reduction in emissions to approximately 11.7 MT CO_{2e} compared to the existing condition. With mitigation incorporated, carbon sequestration associated with the proposed project would result in a total reduction in emissions of 20 MT CO_{2e} over the 40-year lifetime of the project. Under the mitigated scenario, the proposed project would reduce emissions from changes in carbon stock and sequestration by a total of approximately 17.7 MT CO_{2e} over its lifetime. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of mitigation measures and standard conditions of approval.

Biological Resources – Section IV:

Project-specific biological resources reconnaissance surveys (Environmental Resource Solutions, June 13, 2023 – **Exhibit B**) were performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species because of the proposed project. The surveys included database records searches to identify the

presence or potential presence of special-status species within the project site. The database records searches included the USFWS, CNDDDB and CNPS databases. As discussed in **Section IV (Biological Resources)**, no special-status plant or animal species were identified in the proposed development area. Streams within the project site are outside of the proposed development area and would not be affected by the proposed project. With incorporation of **Mitigation Measures BIO-1 through BIO-4**, the following resources would be protected and preserved: bird nests and bat roosts, northern spotted owl, as well as oak woodland. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Cultural Resources – Sections V and XVIII:

The Archeological Resource Management Report (Archeological Resource Service, December 2022) did not identify any significant or potentially significant cultural resources in the proposed development area. One previously recorded archaeological resource is located in the project site but outside of the proposed development area. With the incorporation of standard conditions of approval for cultural and paleontological resources and of **Mitigation Measure TCR-1**, which would ensure that a Tribal Cultural Advisor monitors all earthmoving activities, and would require cultural sensitivity training to all workers on site, project-specific and cumulative impacts related to cultural and tribal cultural resources are considered to be less than significant (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**).

Geology and Soils – Section VII:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 4.78 tons/acre/year as compared to existing conditions (**Table 6**). The reasons for this reduction are due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of erosion control features which reduce soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions and would implement erosion and runoff control conditions of approval, the proposed project is not anticipated to contribute cumulatively to sediment production within the Kortum Canyon Creek drainage. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

Because geologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA and the County's General Plan Goals and Policies (in particular General Plan Conservation Element Policy CON-48, which requires development projects to result in no net increase in sediment erosion conditions and soil loss as compared to existing conditions), it is not unreasonable to anticipate that those projects would also have a less-than-significant project-specific and cumulative impact on erosion and associated sedimentation.

Hazards and Hazardous Materials – Section IX:

The proposed project would implement the identified hazardous materials conditions of approval. Impacts associated with the use, storage, and transport of hazardous materials and accidental release of hazardous materials would be less than significant and no cumulative impacts would occur.

Hydrology and Water Quality – Section X:

Water use calculations provided in the Tier 1 and Tier 3 WAA prepared by Richard C. Slade and Associates (January 2024 – **Exhibit D**) indicate that the proposed development consisting of approximately 1.9 net acres of planted vineyard would result in approximately 1.31 AF/yr of groundwater use. Given that anticipated annual water use of the proposed project and project well groundwater recharge area is below the anticipated annual groundwater recharge rate screening criteria (or allocation); there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and with implementation of the Groundwater Management – Wells Condition of Approval, which would ensure that the proposed supply is within the approved limits, the proposed project would result in less than significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

As discussed in **Section X (Hydrology and Water Quality)** a Hydrologic Analysis was prepared by Applied Civil Engineering (May 2023 – **Exhibit E**). Because the proposed project does not include new diversions, create concentrated flows, or otherwise alter site drainage patterns, and does not materially alter site slopes, no net increase

in runoff volumes or time of concentrations are expected as compared to pre-project conditions with the installation and maintenance of the proposed project (**Exhibit E**). Therefore, no significant impacts due to changes in hydrology are expected.

Not increasing runoff rates is consistent with General Plan Conservation Element Policy CON-50c, which requires that peak runoff following development is not greater than predevelopment conditions. Additionally, as discussed in **Section VII (Geology and Soils)** the proposed project is anticipated to decrease soil loss as compared to existing conditions. Therefore, the proposed project would have a less-than-significant impact with respect to alterations of existing drainage patterns of the site or area that would result in increased runoff, considerable on or off-site erosion, siltation or flooding.

Furthermore, because hydrologic impacts associated with future agricultural projects would receive the same scrutiny under CEQA and County General Plan Policy CON-50(c), which requires development projects to be designed so that peak runoff following development is not greater than predevelopment conditions, it is not unreasonable to anticipate that those projects would also have a less-than-significant project specific and cumulative impact on hydrologic conditions.

Land Use and Planning – Section XI:

As discussed in **Section XI (Land Use and Planning)**, the proposed project, with implementation of the mitigation measures and conditions of approval identified in this Initial Study, achieves compliance with applicable NCC requirements and General Plan Goals and Policies (also see **Section VIII [Greenhouse Gas Emissions]**). The proposed project would not conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned.

Proposed Project Impacts Found to be Less Than Significant:

In addition to the impact categories identified above, the following discussion summarizes those impacts considered to be less than significant with development of the proposed project: Aesthetics, Agriculture and Forestry Resources, Energy, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Periodic use of lighting at the site would not create a substantial source of light and lighting would be in the form of heat lights or downward directional lights on equipment being used during nighttime harvest. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project would not result in wasteful, inefficient, or unnecessary energy use, or conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets. There are no known mineral resource areas within the proposed project site or immediate vicinity. This project would generate noise levels that are considered normal and reasonable for agricultural activities and consistent with the County's "Right to Farm" Ordinance. The potential contribution to noise or vibration impacts is considered less than cumulatively considerable. Traffic related to construction and farm worker trips would not increase by a discernible amount and the relatively low and off-peak vehicle trips associated with the proposed project are considered less than cumulative considerable. The proposed project does not include the construction of structures that would result in population growth or displacement of people and would not adversely impact current or future public services. For these reasons, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

Considering the project site's characteristics, surrounding environment, and the scope and scale of the proposed project, the proposed project with incorporation of identified mitigation measure and conditions of approval, as discussed throughout this Initial Study, is not anticipated to result in either project specific or cumulatively considerable negative impacts; therefore, impacts associated with the proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

- c. Implementation of the proposed project would not have any potentially significant negative effects on human beings (see discussions under **Sections III [Air Quality], IX [Hazards and Hazardous Materials], X [Hydrology and Water Quality], XIII [Noise], XIV [Population and Housing], XVII [Transportation], and XX [Wildfire]**). The proposed project, the use of the project site, and reasonably foreseeable projects would be activities at a level of intensity considered normal and reasonable for a property within an Agricultural Watershed zoning district. Therefore, less-than-significant impacts on human beings are anticipated.

LIST OF FIGURES:

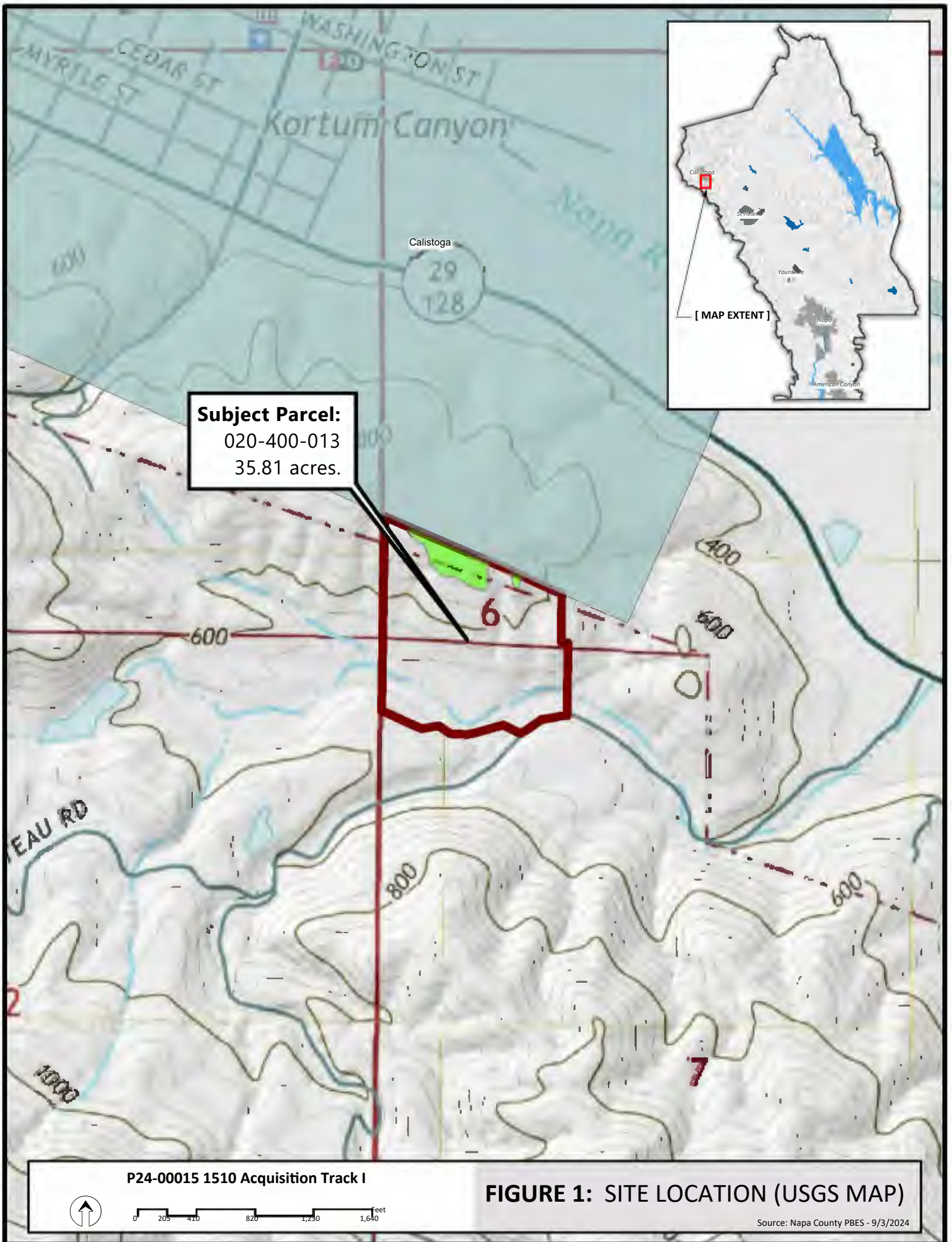
Figure 1	Site Location Map (USGS)
Figure 2	Site Location Map (Aerial)
Figure 3	Project Area (Aerial)

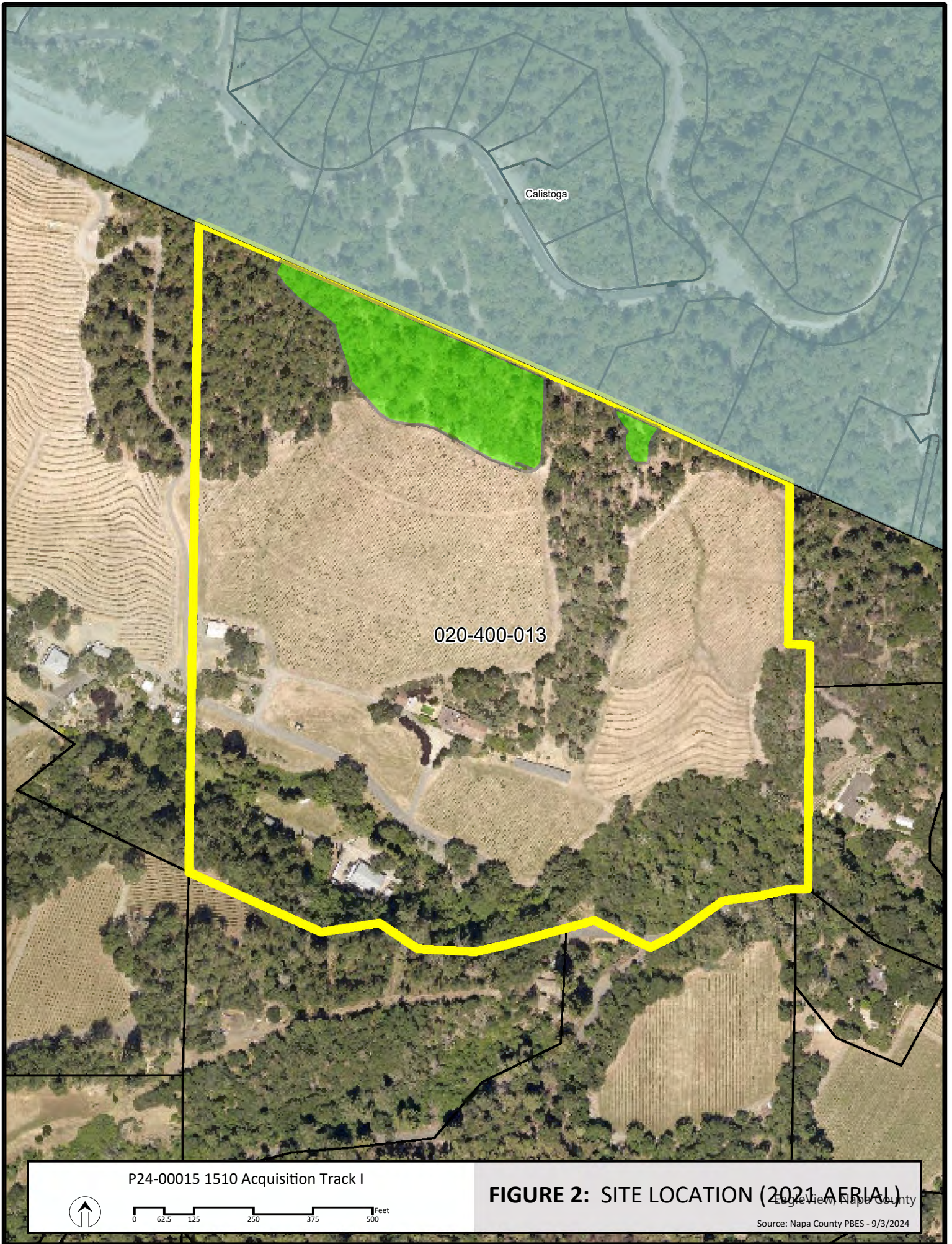
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LIST OF EXHIBITS:

Exhibit A	1510 Acquisition LLC Vineyard Development Erosion Control Plan
Exhibit B	Biological Resource Reconnaissance Survey
Exhibit C	Soil Loss Analysis
Exhibit D	Water Availability Analysis
Exhibit E	Hydrologic Analysis
Exhibit F	Application Submittal Materials and Correspondence
Exhibit G	Project Revision Statement





Calistoga

020-400-013

P24-00015 1510 Acquisition Track I



0 62.5 125 250 375 500 Feet


FIGURE 2: SITE LOCATION (2021 AERIAL)

Source: Napa County PBES - 9/3/2024



Calistoga

LEGEND

 Project Boundaries

P24-00015 1510 Acquisition Track I



0 30 60 120 180 240 feet

FIGURE 3: PROJECT AREA (2021 AERIAL)

Source: Napa County PBES - 9/3/2024