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:** Marineau Vineyard, Agricultural Erosion Control Plan Application Section 17 Exemption (ECPX) #P22-00212-ECPX

2. **Property Owner(s):** Sebastien Marineau-Mes

3. **Contact Person, Phone Number and Email:** Dana E. Morrison, Supervising Planner, (707) 253-4437, dana.morrison@countyofnapa.org

4. **Project Location and Assessor's Parcel Number:** 4000 Silverado Trail North, Calistoga, CA 94515 (**Figures 1 and 2**)
   Assessor's Parcel Number (APN) 021-010-077 (formerly 021-010-079)

5. **Project Sponsor:** Sebastien Marineau-Mes
   619 Diamond Street
   San Francisco, CA 94114

   Agent: Coda Rainsford (CPESC #9225)
   HDVine LLC
   Santa Rosa, CA

6. **General Plan Designation:** Agriculture, Watershed and Open Space (AWOS)

7. **Zoning:** Agricultural Watershed (AW)

8. **Background:**

The approximately 5.67-acre[1] parcel includes a single-family residence, guest house, garage, pool, pool house and solar array (all currently under construction), two wells, an existing driveway and 0.75 acres of existing vineyard located on slopes less than 5% (not subject to an Erosion Control Plan -ECP). The project site was burned in the 2020 Glass Fire and is therefore subject to NCC Section 8.80.130 (amended through Urgency Ordinance No. 1463), which requires the vegetation canopy cover analysis (per NCC Section 18.108.020(C)) for any earthmoving activity as defined in NCC Section 18.108.030 (Definitions) occurring on fire-damaged property in the Agricultural Watershed zoning district and outside of a sensitive domestic water supply drainage as defined in Section 18.108.030 (Definitions), use a baseline of June 19, 2018, for evaluating canopy impacts. There is history of agriculture on the parcel with the existing vineyard located on slopes less than 5%; these have been on site since prior to 2002. A Lot Line Adjustment was processed on the parcel in 2022 that increased the size of the subject parcel from 4.07 acres to 5.67 acres.

9. **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 1.24 gross acres (i.e., proposed development area or project area) with approximately 1.09 net planted acres in one proposed vineyard block. Slopes in the proposed development area range from 22 percent (%) to 40%, with an average slope of 30%. Per Ordinance No. 1438, Section 17 earthmoving activities associated with an agricultural project of five (5) acres or less on slope of less than 30% can utilize a one-time exemption whereby the project is required to comply with the Conservation Regulation in effect prior to the effective date of Ordinance No. 1438. As such, the project is exempt from the vegetation requirements of Napa County Code (NCC) Section 18.108.020. Approximately 45 trees, impacted by fire, would be removed as part of the proposed project. Per new Bay Area Air Quality District Management District policies in regards to Green House Gas (GHG) emissions, the project is required to result in no net decrease in sequestration capabilities. A GHG analysis was prepared for the project and demonstrated no net decrease in sequestration capabilities of the parcel as a result of the proposed project (see **Exhibit D**). While exempt from 18.108.020 the project does involve the removal of existing mapped oak woodland and, as such, the project must comply with General Plan Policy CON-24. The applicant has identified 2.34 acres of mapped oak woodland forest to be designated as a permanent preserve to meet the 2:1 preservation requirement of Policy CON-24. All temporary debris, vegetation, soil and soil amendment stockpiles and storage areas, if needed, will be located within the proposed vineyard development area and clearing limits. The proposed vineyard would be irrigated with approximately 0.46 acre-feet (AF) of groundwater annually (reducing to 0.31 AF annually once the vineyard is established) from one existing well located adjacent to the proposed vineyard block. Irrigation pipelines would be located within the proposed development area, with the exception of the main line that would connect the groundwater well to the proposed development area (see **Exhibit A-1**). Minimal rocks are expected, but any encountered during development

[1] Parcel was 4.07 acres prior to a lot line adjustment (W21-00497) the parcel number was APN 021-010-079, which is still referenced on some application materials and associated reports. Post adjustment the parcel is 5.67 acres in size and APN is 021-010-077. Please note that the County GIS system has not been updated an only APN 021-010-079 comes up when searching for the parcel, -077 will yield no results.

of the proposed project would be stored or buried within the proposed development area or used for vineyard avenues or landscaping. New wildlife exclusion fencing would be installed along the property line boundary.

Erosion Control Measures: Temporary erosion control measures include installation of fiber rolls/wattle sediment barriers, silt fences, straw bale dikes, and the application of straw mulch at a rate of 4,000 pounds per acre. Permanent erosion control measures include a permanent cover crop maintained at minimum vegetation cover density of 75% for the proposed vineyard block. Details of the proposed erosion control measures are provided in the Track I ECPX for Sebastien Marineau-Med Vineyard Development Plan prepared by Coda Rainsford (CPESC #9225) of HDVine LLC (**Exhibits A-1 and A-2**).

Earthmoving: Earthmoving and grading activities associated with land contouring (10 cubic yard balanced onsite) and the installation of erosion control measures and subsequent vineyard operations include, but are not limited to, vegetation removal, soil ripping to a depth up to 48 inches, rock removal, disking, trenching for irrigation pipelines, 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 6-foot spacing pattern for an approximate vine density of ±1,815 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 #P22-00212-ECPX and **Table 2** outlines typical general ongoing vineyard operations. The vineyard would be developed in one phase, with construction occurring up to six months during the year. The final implementation schedule is pending action on #P22-00212-ECPX

Table 1 – Implementation Schedule

April 1 – October 1	Remove existing vegetation, complete ripping, grading and discing.
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 five round trips per day for anticipated work crews of between one and ten employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would include a bulldozer, tractor, excavator, backhoe, dump truck, water truck, and ATVs and passenger vehicle and/or light trucks.

Vineyard operations are anticipated to generate about two trips per day for anticipated work crews of about two employees for typical operations, such as but 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 about five round trips, including grape haul trucks, for anticipated work crews of ten employees. Anticipated equipment for vineyard operations would include a tractor, backhoes, grape haul truck, and ATVs and passenger vehicle and/or light trucks.

Implementation of the proposed project would be in accordance with the Sebastien Marineau-Mes Vineyard Development Erosion Control Plan prepared by Coda Rainsford (CPESC #9225) of HDVine LLC (February 2024- **Exhibits A-1** and **A-2**). 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://pbes.cloud/index.php/s/r3JKozkwqa6cjzX.

10. Describe the environmental setting and surrounding land uses.

The approximately 5.67-acre project site (APN 021-010-077) is located in northwestern Napa County, approximately 2 aerial miles southeast of downtown Calistoga, in Napa, California (**Figures 1-3**). Access to the gated project site is via Silverado Trail North, about 0.33 mile south of Larkmead Lane.

The project site contains about 0.75 acre of existing vineyard and associated vineyard infrastructure, access roads, and two existing groundwater wells. The central portion of the project site is planned for a residence, garage, pool, pool house and solar array (all currently permitted and under construction). Surrounding land uses consist primarily of valley floor vineyard developments west of Silverado Trail and a mix of residential and undeveloped woodland east of Silverado Trail.

The project site is located within the Dutch Henry Creek watershed. There are no blue-line streams located on the subject parcel. Dutch Henry Creek is located 650 feet west of the project sit. Dutch Henry Creek is a blue-line stream that flows southerly before it merges with the Napa River, which empties into the San Pablo Bay, which is part of the San Francisco Bay Watershed.

The general topography of the project site is moderately to steeply sloped, ranging from approximately 300 to 450 feet above mean sea level. The proposed development area lies on a slightly concave area with average slopes from 22% to 40%, with an overall average of 30% slopes. Soils in the proposed development area are classified as Boomer gravelly loam, volcanic bedrock, 14 to 60 % slopes. There are no nearby landslide features. The nearest unnamed fault is located approximately 3.58 miles north of the project site and runs in a northeast-southwest direction.

Vegetative cover in the project site includes coast live oak woodland, non-native grassland, and disturbed areas. The project site is located in the Dutch Henry Creek watershed, and Dutch Henry Creek, the closest blueline stream on the U.S. Geological Survey (USGS) Calistoga 7.5-minute topographic quadrangle, is located about 650 feet west of the proposed development area. The Napa River is located approximately 0.5 mile from the project site.

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	**Other Agencies Contacted**
California Department of Fish and Wildlife (CDFW) (T)	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 Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on June 21, 2022. No requests for consultation were received as a result of the AB-52 notification. The consultation period is considered closed because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitations were provided. 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.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ 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 ECPX #P22-00212-ECPX 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://pbes.cloud/index.php/s/r3JKozkwqa6cjzX.

- HDVine LLC, Revised June 2024, Track I ECPX, P22-00212 Marineau Vineyard Site Plan (**Exhibit A-1**).
- HDVine LLC, June 2022, Revised February 2024, Track I ECPX Narrative for Sebastien Marineau-Mes Vineyard Development (**Exhibit A-2**).
- WRA Environmental Consultants, June 2022, Biological Resources Reconnaissance Survey Report, Marineau Property, 4000 Silverado Trail, Napa County, California (APN: 021-010-077) (**Exhibit B**).
- Archaeological Research, John W. Parker, Ph.D., May 2022, Cultural Resource Evaluation of 4000 Silverado Trail North, Calistoga, APNS 021-010-077 and Portion of 021-030-062 (contents confidential).
- HDVine LLC, June 2022, Soil Loss Analysis – Sebastien Marineau-Mes Vineyard (**Exhibit C-1**).
- Natural Resources Conservation Service, May 2022, Custom Soil Resource Report for Napa County, California, Sebastien Marineau-Mes (**Exhibit C-2**)
- HDVine LLC., January 25, 2024, Marineau Vineyard (P22-00212): Analysis of Greenhouse Gas Impacts from Land Conversion (**Exhibit D**).
- HDVine LLC, June 2022, Revised June 2024, Sebastien Marineau-Mes Vineyards Water Availability Analysis (WAA) (**Exhibit E**).
- HDVine LLC, May 2023, Hydrology Report – Sebastien Marineau-Mes Vineyard (**Exhibit F**).
- Application Submittal Materials and Correspondence (**Exhibit G**)
- Project Revision Statement (**Exhibit H**)
- Site inspection conducted by Napa County Engineering Division staff on February 16, 2022.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

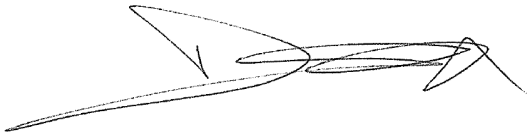
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 H** 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

July 1, 2024
Date

Dana E. Morrison
Printed Name

Napa County Planning, Building and Environmental Services

		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?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion

a-b. The project site is located near a scenic corridor, as it is located adjacent to Silverado Trail North, a County-designated viewshed road (Napa County GIS, Scenic Corridors Layer). Existing vineyards are located within and surrounding the project site. The vineyard land use of the proposed project would be consistent with the land uses in surrounding area. Additionally, visual impacts related to construction equipment and activities at the development area would be short-term and temporary in nature.

The project site was heavily impacted by the 2020 Glass Fire that damaged vegetation throughout the project site and surrounding properties. The proposed project includes the removal of 45 fire impacted trees in the proposed development area and preservation of 2.34 acres of the remaining fire impacted canopy in the project site (see **Section IV [Biological Resources]** below). Tree removal occurring as part of project construction would not degrade the existing visual character or quality of public views of the site or its surroundings.

The project site is not located on a prominent hillside, or a major or minor ridgeline (Napa County GIS, Ridgelines Layer). There are no significant rock outcroppings or geologic features in the project site that would be impacted by the proposed project. Additionally, the project site is not located in the vicinity of an officially designated state scenic highway (California State Scenic Highway System Map). Therefore, for the reasons described above, the proposed project would have a less-than-significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops.

c. Development of the proposed project would result in the removal of existing vegetation within the proposed development area and includes the development of new vineyard. The proposed project is consistent with the Napa County Agriculture, Watershed and Open Space land use designation and with adjacent land uses, which include agricultural, residential, and undeveloped woodland. Although trees would be removed, as explained in questions a-b above (and discussed in **Section IV [Biological Resources]** below), the majority of the trees are not visible from public viewpoints, and their removal would not substantially degrade the existing visual character or quality of public views of the site or its surroundings. For these reasons, the impact would be less than significant.

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 2 a.m. to 10 a.m.) approximately four days per year. The proposed project would include sulfur and pesticide/herbicide applications that could occur between 4 a.m. and 7 a.m., approximately five days 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
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:				
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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a. The project site is not mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the California Department of Conservation; the site is mapped as Other Land. The proposed project would result in an increase in agricultural land from previously undeveloped uses onsite; 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 Agriculture, Watershed and Open Space land use designation and is zoned Agricultural Watershed. Therefore, the establishment of vineyard totaling approximately 1.24 gross acres with approximately 1.09 net planted acres is consistent with project site's land use and zoning designations. The project site does not have a Williamson Act contract associated with it. 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."

According to the County of Napa GIS layer, the project site is noted as coniferous forest. However, the Biological Resources Reconnaissance Survey Report (WRA Environmental Consultants, June 2022 – **Exhibit B**) notes that the project site is comprised of coast live oak woodland, non-native grassland, and disturbed areas and does not contain forest land or coniferous forest. County GIS layers are a tool to help inform planners when reviewing new projects but are not 100% accurate. The site-specific biological resources assessment of the land cover types by WRA biologists is a more accurate analysis of the existing site conditions and therefore is used to analyze the project. The project site is zoned as Agricultural Watershed 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). Therefore, no impact would occur.

e. The proposed project would not construct new vineyard access roads to the project site. Construction of the proposed vineyard would not result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would have no impact on agricultural or forest resources of Napa County.

		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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion[2]

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.[3] 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.

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. The project site is located within the Napa County climatological subregion of the SFBAAB, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion facilitate accumulation of pollutants and increase the potential for air pollution. The proposed project would generate air quality impacts from both construction activities as well as operational 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, and vehicular haul and worker trips. 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.

   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 (PM_{10}), 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 PM_{10} 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 PM_{10} and $PM_{2.5}$.

[2] CEQA Thresholds and Guidelines Update (baaqmd.gov): https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines
[3] 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.

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) 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 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 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 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 project would benefit from this ongoing program and would not conflict with its implementation. Therefore, the project would not be inconsistent with nor hinder implementation of any of the Clean Air Plan control measures.

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

b. 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

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.

regard to fugitive dust emissions of PM_{10} and $PM_{2.5}$ if BAAQMD Basic Construction Mitigation Measures are implemented during construction.

In order to assess potential air pollutant emissions by the project, a review of the analysis of emissions associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards[7] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[8] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[9] for an approximately 400-acre vineyard development[10].

The analysis for the Circle-S EIR anticipated construction in phases of approximately 150 acres, which would generate approximately 100 15-mile one-way trips per day (75 worker trips and 25 truck trips). The analysis anticipated that maximum operational emissions occurring during harvest of an approximately 400-acre vineyard which would generate approximately 170 15-mile one-way trips per day (approximately 160 worker trips and eight grape haul truck trips). The Walt Ranch EIR analysis anticipated vineyard development in phases of approximately 127 acres, which would generate approximately 160 15-mile one-way trips per day, and annual vineyard operations generating up to approximately 160 one-way trips of approximately 15 miles per trip occurring during harvest. The Suscol Mountain EIR analysis anticipated vineyard development in phases of either approximately 150 or 250 acres, which would generate approximately 50 to 60 15-mile one-way trips per day, and annual vineyard operations generating up to approximately 116 15-mile one-way trips occurring during harvest.

Table 4 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in 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, and operational equipment operation and trips.

Table 4 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO_x	$PM_{2.5}$	PM_{10}
	Construction Emissions (pounds per day)			
Pounds per day: 150-acre vineyard development[1]	8.43 to 11.39	34.39 to 52.16	3.93 to 4.47	13.93 to14.53
Pounds per day: 150- to 250-acre vineyard development[2]	9.43 to11.03	43.85 to 53.16	3.91 to 4.62	12.87 to 17.22
Pounds per day: 127-acre vineyard development[3, 4]	4.6	42.3	5.21[4]	24.21[4]
Construction threshold	54	54	54	82
	Operational Emissions (pounds per day)			
Pounds per day: 400-acre vineyard operation[1]	7.78	2.85	0.80	4.22
Pounds per day: 560-acre vineyard operation[2]	6.58	1.84	0.75	3.91
Pounds per day: 507-acre vineyard operation[3]	4.3	22.3	1.4	2.3
Operational threshold (pounds per day)	54	54	54	82
Tons per year: 400-acre vineyard operation[1,5]	0.78	0.35	0.11	0.58
Operational threshold (tons per year)	10	10	10	15

[1] As identified in Circle-S EIR; [2] As identified in Suscol Mountain EIR; [3] As identified in Walt Ranch 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: Circle-S Ranch Vineyard EIR 2011; Suscol Mountain Vineyard EIR 2013; Walt Ranch Vineyard EIR 2016; BAAQMD CEQA Guidelines April 2023.

Because the proposed project's 1.24 gross acre vineyard (approximately 1.09 net-planted acres) is smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less that those identified in **Table 4** and would therefore result in a less than significant impact during both construction and operation.

Additionally, project approval, if granted, would be subject to the Air Quality Conditions of Approval described below, which includes measures consistent with BAAQMD BMPs for Construction-Related Fugitive Dust Emissions to not result in a significant impact with respect to mass criteria pollutant emissions of fugitive dust. These BMPs would be incorporated into the proposed project and therefore, the project would result in a less than significant impact with respect to fugitive dust emissions.

Air Quality – Conditions of Approval:

The owner/permittee shall implement the following air quality BMPs during construction activities and vineyard maintenance and operations:

[7] #P09-00176-ECPA, Analytical Environmental Services (AES) March 2012, SCH #2009102079 certified February 3, 2013

[8] #P11-00205-ECPA, AES March 2016, SCH #2008052075 certified August 1, 2016

[9] #P06-01508-ECPA, AES April 2011, SCH #2007062069 certified December 22, 2011

[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.

- 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 roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further 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.

Implementation of the proposed project would not 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.

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. As such, health risk impacts from exposure to air pollution are evaluated for these sensitive receptors in the vicinity of projects. In its 2022 CEQA Guidelines, BAAQMD also recommends that health risk impacts also be evaluated for worker receptors.

Surrounding land uses consist primarily of valley floor vineyard developments west of Silverado Trail and a mix of residential and undeveloped woodland east of Silverado Trail. The project site consists of approximately 5.67 acres of land and existing facilities including about 0.75 acre of vineyard, access roads, and two groundwater wells. The closest school is located approximately 3 miles south of the project site (Foothills Adventist Elementary) (Napa County GIS, Schools Layer). The closest offsite residence is located approximately 310 feet north of the proposed development area.

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 miles from the closest school and approximately 310 feet from the nearest 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.

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

Discussion

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

- WRA Environmental Consultants, June 2022, Biological Resources Reconnaissance Survey Report, Marineau Property, 4000 Silverado Trail, Napa County, California (**Exhibit B**)
- Figure 4: Preservation Area Map

WRA Environmental Consultants conducted an assessment of biological resources present or potentially present in the project site on April 29 and June 23, 2020, and April 23, June 23 and, November 15, 2021. 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, 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 California Natural Diversity Data Base (CDFW CNDDB Rare Find), U.S. Fish and Wildlife Service (USFWS) listed species known for the Mount St. Helena, Detert Reservoir, Aetna Springs, Mark West Springs, Calistoga, St. Helena, Santa Rosa, Kenwood, and Rutherford USGS 7.5-minute topographic quadrangles, and the California Native Plant Society (CNPS) Electronic Inventory of Rare or Endangered Plants.

The 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 on the site and in the near proximity. Transactions through the project site were made methodically on foot.

The habitat and vegetation types/alliances in the project site consist of developed area (0.79 acre), non-native Annual Grassland – Wild Oat Grassland (*Avena barbata* Semi-Natural Herbaceous Stands) (0.25 acre), and Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance) (4.65 acres). The proposed development area contains approximately 1.17 acres of coast live oak woodland and 0.07 acre of non-native

grassland (please note the Bio Report notes 1.44 acres as the proposed development area, but the project scope was reduced to 1.24 acres during the review process).

a. Special-Status Plants: Based upon a review of the resource databases, eight special-status plant species have the potential to occur in the project site. Special-status plants with known records in the vicinity of the project site include the following: Franciscan onion *(Allium peninsulare* var. *franciscanum*), Bent-flowered fiddleneck *(Amsinckia lunaris*), Big-scale balsamroot *(Balsamorhiza macrolepsis*), Streamside daisy (*Erigeron biolettii*), Nodding harmonia (*Harmonia nutans*), Marsh microseris (*Microseris paludosa*), Oval-leaved viburnum (*Viburnum ellipticum*), and Napa false indigo (*Amorpha californica* var. *Napensis*). No habitat for these species occurs in the project site and no special-status plant species would be impacted by the proposed project (WRA Environmental Consultants, June 2022 – **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.[11] Additionally, pursuant to Napa County General Plan Policy CON-13,[12] 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.

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 1.24 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.

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. Policy CON 24c[13], specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. The project site contains approximately 4.65 acres of oak woodland, with 1.17 acres occurring in the proposed development area. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy CON-24c, 2:1 preservation ratio, approximately 1.55 acres can be converted to vineyard to comply with this policy. Therefore, with the implementation of **Mitigation Measure BIO-1**, the project's proposed conversion of 1.17 acres of oak woodland and preservation of remaining oak woodland in the project site would minimize potential impacts to oak woodlands and comply with policy directives. Further, specific to canopy cover, NCC Section 18.108.020 (D) states that in the Agricultural Watershed zoning district, the removal of vegetation canopy cover shall be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio, however, utilizing the Section 17 (a one-time exemption) the project is exempt from the requirement of 18.108.020 (C + D). To meet the 2:1 preservation for Policy CON-24 requirement, the project will need to permanently preserve 2.34 acres of oak woodland habitat.

To reduce impacts on the oak woodland biological community to a less-than-significant level and comply with Policy CON-24c, **Mitigation Measure BIO-1** shall be implemented to preserve 2.34 acres of oak woodland habitat in the project site. Implementation of **Mitigation Measure BIO-1** would not substantially affect the feasibility of the proposed project or the continued viability of agricultural use of the project site, in that it would allow the owner/permittee to develop approximately 1.24 gross acres of new vineyard on the approximately 5.67-acre project site.

> **Mitigation Measure BIO-1**: The owner/permittee, prior to approval, shall implement to following measures to minimize impacts to oak woodlands:
>
> a. Revise Erosion Control Plan #P22-00212-ECPX prior to approval to identify and permanently preserve 2.34 acres of oak woodland, as detailed in the Napa County Preservation Areas Map (**Figure 4**).
> b. The Preservation Areas, totaling a minimum of 2.34 acres of oak woodland and as shown in the Napa County Preservation Areas Map (**Figure 4**), identified in #P22-00212-ECPX as mitigated, shall be designated as such in a deed restriction or

[11] 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.

[12] 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.

[13] 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.

mitigation easement 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 or mitigation easement 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 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; 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 30%). The proposed vegetation to be preserved is of similar quality and habitat type as the oak woodland that was impacted by fire.

The land placed in protection shall be restricted from development and other uses that would potentially degrade the quality of the habitat (including, but not limed 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 preservation will be left to naturally revegetate but may be managed for fuel reduction purposes under the direction of the California Department of Forestry and Fire Protection and may be managed in manner consistent with the Voluntary Oak Woodlands Management Plan (October 26, 2010).

c. 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 proposed 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.

d. 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 proposed development area.

e. 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 #P22-00212-ECPX 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 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.

Special-Status Animals: Four special-status wildlife species have a potential to occur within the proposed development area: pallid bat (*Antrozous pallidus*), fringed myotis (*Myotis thysanodes*), white-tailed kite (*Elanus leucurus*), and purple martin (*Progne subis*). Several additional species that have the potential to occur within the project site, but they are unlikely to utilize the proposed development area.

Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas. Trees within the project site (primarily oaks) may contain cavities or snags suitable for roosting by this species, and there are CNDDB occurrences in the vicinity of the project site. This species or evidence of this species was not observed during the field surveys; however, a targeted bat habitat assessment was not performed under the biological assessment. (WRA Environmental Consultants, June 2022 – **Exhibit B**).

The fringed myotis ranges through much of western North America from southern British Columbia, Canada, south to Chiapas, Mexico and from Santa Cruz Island in California, east to the Black Hills of South Dakota. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in Oregon, New Mexico, and California. The trees within the project site may contain cavities or exfoliating bark suitable for roosting. This species or evidence of this species was not observed during the field surveys; however, a targeted bat

habitat assessment was not performed under the biological assessment (WRA Environmental Consultants, June 2022 – **Exhibit B**).

White-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The project provides suitable year-round habitat for white-tailed kites, including stands of oaks for nesting and open areas in close proximity for foraging. This species was not observed during the field surveys; however, a bird survey was not performed during the assessment. (WRA Environmental Consultants, June 2022 – **Exhibit B**).

Purple martin is an uncommon summer resident in California, occurring in woodlands and low-elevation hardwood and coniferous forest. It usually feeds on insects captured in flight approximately 100 to 200 feet above ground. These birds nest in cavities of tall, old, isolated trees or snags in open forest or woodland. The trees within the project site may contain cavities or exfoliating bark suitable for roosting. This species was not observed during the field surveys; however, a bird survey was not performed during this assessment. (WRA Environmental Consultants, June 2022 – **Exhibit B**).

Special-status bat species may be present within tree cavities or snags within the proposed development area or may be roosting in exfoliating bark. Special-status bat species have the potential to be impacted during removal of the approximately 45 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 Game Code may also nest onsite. 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-2** would be implemented.

Mitigation Measure BIO-2: The owner/permittee shall revise Erosion Control Plan #P22-00212-ECPX prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status bat species:

a. August 31 through October 15, and March 1 to April 15: Under the supervision of a qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying), bat habitat trees shall be removed or trimmed in a two-phased system conducted over two consecutive days. The first day (in the afternoon), limbs and branches will be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures will be avoided, and only branches or limbs without those features will be removed. On the second day, the entire tree will be removed. All felled trees shall remain on the ground for at least 24 hours prior to disposal to allow any present bats within the trees to escape.
b. Bat habitat tree removal or trimming between October 16 and February 28/29 of the following year or between April 16 and August 30: A qualified biologist shall conduct pre-construction survey within 14 days of project initiation to determine absence or presence of special-status bat species. A copy of the survey results shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present removal can proceed as prescribed. If bats are found to be present a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Planning Division and CDFW. The removal or exclusion plan shall be reviewed and authorized by the County Planning Division and implemented prior to commencement of the ECPA.

To reduce potentially direct and indirect significant impacts on special-status and protected bird species to a less-than-significant level, **Mitigation Measure BIO-3** would be implemented.

Mitigation Measure BIO-3: The owner/permittee shall revise Erosion Control Plan #P22-00212-ECPX 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 18.108.070.L, 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 in the project site, and where there is potential for impacts adjacent to the project areas (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than seven days prior to when vegetation removal and ground disturbing activities are to

commence. Should ground disturbance commence later than seven 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 CDFW prior to commencement of work.

b. After commencement of work if there is a period of no work activity of seven 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 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 the 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) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

b-c. The project site does not contain riparian habitat, streams or wetlands. Coast live oak woodlands are present in the project site; approximately 4.65 acres of oak woodlands are present, with approximately 1.17 acres occurring in the proposed development area. This biological community is considered sensitive by Napa County.

Pursuant to Napa County General Plan Conservation Element Policy CON-17, projects shall be required to preserve and protect sensitive biotic communities and habitats of limited distribution through the following:

a. Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

b. In other areas, avoid disturbances to or removal of sensitive natural plant communities and mitigate potentially significant impacts where avoidance is infeasible.

c. Require no net loss of sensitive biotic communities and habitats of limited distribution through avoidance, restoration, or replacement where feasible. Where avoidance, restoration, or replacement is not feasible, preserve like habitat at a 2:1 ratio or greater within Napa County to avoid significant cumulative loss of valuable habitats.

With the implementation of **Mitigation Measure BIO-1**, impacts on oak woodland would be reduced to a less-than-significant level by permanently preserving 2.34 acres of oak woodland in the project site (consistent with the Napa County General Plan Conservation Element Policy CON-17 2:1 preservation ratio requirement), as shown in **Figure 4 (Preservation Areas)**.

d. The project site does not contain any designated Critical Habitat or Essential Fish Habitat. The project site also does not contain streams or rivers to provide habitat and dispersal for aquatic and semi-aquatic wildlife, is not within a designated wildlife corridor, and no wildlife nursery sites were identified in the project site (WRA Environmental Consultants, June 2022 – **Exhibit B**).

The project site is located within a much larger tract of forest/woodland and lightly developed land within a rural portion of Napa County. While common wildlife species presumably use the site to some degree for movement at a local scale, the project site itself does not provide corridor functions beyond connecting similar forested and heavily wooded land parcels in surrounding areas (WRA Environmental Consultants, June 2022 – **Exhibit B**).

New wildlife exclusion fencing would be limited to the proposed vineyard block perimeter. Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because construction activities are temporary and because of the limited scale of the project (1.24 gross acres). In addition, with the implementation of **Mitigation Measure BIO-1**, the preservation of stands of oak woodland would provide movement and shelter habitat for a variety of common wildlife species and include connectivity to adjacent properties. Maintaining this connectivity should provide for continued cross-pollination and gene flow, as well as local 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.

While the proposed fencing would not result in significant impacts to wildlife movement and use, in order to ensure that 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 condition of approval shall be implemented, should the project be approved.

Fencing – Conditions of Approval:

The owner/permittee shall revise Erosion Control Plan #P22-00212-ECPX prior to approval to include a Vineyard Fencing Plan. The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P22-00212-ECPX, and include the following components:

- 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 deer fencing as specified in Erosion Control Plan #P22-00212-ECPX pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited, and would require County review and approval to ensure the modified deer fencing location/plan would not result in potential impacts to wildlife movement.

e. Based on the biological resources surveys, the project site contains a total of approximately 4.65 acres of coast live oak woodland (approximately 1.17 acres within the development area). The proposed project would result in the removal of 1.17 acres of oak woodland (75% retention), with approximately 46 trees removed within the proposed development area.

Oak woodland is the most common land cover in the County occurring on approximately 167,000 acres (33% of the County's area). Approximately 733 acres of oak woodland or 0.5% of the total area of oak woodland in the County has been cleared for residential and agricultural purposes between 1993 and 2002 (Napa County Baseline Date Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 2005). While oak woodlands may be one of the most common land covers within the County, their past conversion to residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained and/or improved to the extent feasible to provide for oak woodland and wildlife habitat, slope stabilization and soil protection, and species diversity. General Plan Conservation Element Policy CON-24c specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where feasible, where preservation/avoidance of oak woodland is not feasible replacement of oak woodland at a 2:1 ratio is required. Removal of more than 1 acre of oak woodland for every 2 acres preserved would be a significant impact. **Mitigation Measure BIO-1** listed in question a above would permanently preserve 2.34 acres of oak woodland in the project site to comply with Policy CON-24.

NCC Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the Agricultural Watershed zoning district retain 70% of the vegetation canopy cover based on the on-site canopy present on June 16, 2016. However, the project is applying for a Section 17 Exemption and as such the project is exempt from the vegetation requirements of Napa County Code (NCC) Section 18.108.020(C).

As discussed in **Section VIII (Greenhouse Gas Emissions)**, a site-specific GHG analysis was conducted by HDVine LLC (January 2024 – **Exhibit D**) to assess the change in carbon stock and carbon sequestration due to land conversion proposed by the project. The analysis found that the proposed project would sequester enough carbon for a net positive balance of approximately 67 MT CO_2e over the 40-year time span used in the evaluation. The increase in sequestration with the proposed project would more than offset the loss in carbon storage from removal of existing vegetation, and the generation of construction and operational emissions associated with the project. Further, with implementation of **Mitigation Measures BIO-1 through BIO-3** and the identified 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 35 tons per acre across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 19 tons per acre, or a reduction of approximately 46% 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-3** 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.

	Potentially Significant Impact	Less Than Significant Impact With	Less Than Significant Impact	No Impact

			Mitigation Incorporated		
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion

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

The following was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS Archeological sensitive areas and Archeological sites layers:

- Archaeological Research, John Parker, Ph.D., May 2, 2022, Cultural Resources Evaluation of 4000 Silverado Trail North, Calistoga APNS 021-010-077 and Portion of 021-030-062) (contents confidential)

Archaeological Research conducted a cultural resources evaluation for 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 land 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 project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a-b. The cultural resources study (Archaeological Research, May 2022) did not identify any significant or potentially significant cultural resources in the proposed development area.

Although no cultural resources were found, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, 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.

	Potentially Significant 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

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 consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). 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 2018 - https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan).

   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 will 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] 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:				

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

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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

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 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 faults are located approximately 3.5 miles northeast, 4.8 miles northwest, and 4.6 miles southeast of the project site (Napa County GIS faults and earthquakes layers). 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, 2009). 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) According to the Napa County Geographic Information System, there are no landslides located in the vicinity of the project site. No impact would occur (also see question c below for additional discussion regarding slope stability and landslides).

b. The proposed development area is underlain by Boomer gravelly loam, volcanic bedrock series, 14 to 60% slopes. Installation and implementation of the 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 Universal Soil Loss Equation (USLE) in order 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 75% for the proposed vineyard block. 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 HDVine LLC (**Exhibit C-1**), the proposed conversion of approximately 1.24 acres of vegetation to vineyard is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 5**). Under existing conditions, the annual soil loss is anticipated to total 35 tons per acre across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to total 19 tons per acre, or a reduction of approximately 46% as compared to existing conditions.

Table 5 – USLE Soil Loss Analysis

Flow Line	Pre-project Soil Loss (tons/acre)	Post-project Soil Loss (tons/acre)	Difference	Percent Change (approximate)
1a	9	8	1	-11%
1b	15	6	9	-60%
1c	11	5	6	-55%
Total	**35**	**19**	**16**	**-46%**

Source: HDVine, June 2022, Soil Loss Analysis – **Exhibit C-1**

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 fiber rolls/wattle sediment barriers, silt fences, straw bale dikes, straw mulching, permanent no-till cover, 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 referenced into Erosion Control Plan #P22-00212-ECPX 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, 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 (#P22-00212-ECPX) 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 be 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 75% for the proposed vineyard block. Cover crop may be disked 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.

c. As discussed above, there are no landslides located in the vicinity of the project site, and there are no observed signs of gullies, landslides, slope instability, or excessive erosion within the project area. The proposed development area is not in an area prone to 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. The proposed development area contains soils categorized as Boomer gravelly loam, volcanic bedrock, 14 to 60% slopes, which exhibits low to moderate shrink-swell potential (USDA, 1978). 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 in 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 fined shall be temporarily halted of 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?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion

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).[14] The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., 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 GHG reduction and carbon neutrality goals by 2045, then a 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 proposed construction-related climate impact threshold at this time. GHG emissions from construction represent a very 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 project GHG emissions.

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, 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, 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. 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, a no net increase threshold is applied for the evaluation of GHG emissions generated by the proposed project. A no net increase in GHG would ensure that the proposed project would not generate GHGs, either directly or indirectly, that may 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.

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.

Consistent with these General Plan action items, Napa County participated in the development of a community wide GHG emissions inventory and "emission reduction framework" for all local jurisdictions in the County in 2008-2009. This planning effort was completed by the Napa County Transportation and Planning Agency in December 2009, and served as the basis for development of a refined inventory and emission reduction plan for unincorporated Napa County.

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 carbon dioxide (CO_2), methane, ozone, and the fluorocarbons, which contribute to climate change. CO_2 is the principal GHG emitted by human activities,

[14] https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines, April 2022

and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas 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 generally reported as carbon dioxide equivalents (CO_2e) which considers the quantity and global warming potentials of different GHGs as compared to the reference GHG, CO_2 and reports it as a single number. In this case CO_2 is used as the reference atom/compound to obtain atmospheric carbon CO_2 effects of GHG. Carbon stocks 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).[15]

One-time "Construction Emissions" associated with vineyard development projects include: i) carbon stocks that are lost or released when site vegetation is removed, including any woody debris and downed wood (referred to as Carbon Stock Emissions below) and ii) emissions associated with the energy used to develop and prepare the development area and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below).

As stated above, the April 2022 update to BAAQMD thresholds of significance do not include construction-related impact thresholds, as GHG emissions associated with the energy used to develop, prepare and plant the project area represent a very small portion of a project's lifetime GHG emissions. The construction emissions analysis below is for disclosure purposes only, as there is no threshold against which to analyze the potential significance of impact.

"Operational Emissions" of the vineyard are quantified and include: i) any reduction in the amount of carbon sequestered by existing vegetation that is removed as part of the project (referred to as Operational Sequestration Emissions below); and ii) ongoing emissions from the energy used to maintain and farm the vineyard, including vehicles (such as haul trucks, pick-up trucks) and worker vehicle trips (referred to as Operational Equipment Emissions below).

The assessment of change in carbon stock and carbon sequestration due to land conversion proposed by the project relies on the site-specific GHG analysis conducted by HDVine LLC (January 2024 – **Exhibit D**). The project site was severely damaged by the 2020 Glass Fire, which would be considered a high-severity fire. The analysis evaluated two scenarios over a 40-year lifetime.

1. Baseline Scenario: The Baseline Scenario considers remaining carbon stock and recovery potential of post-fire conditions within the boundaries of the proposed development area without the proposed vineyard development. The analysis includes an estimate of carbon stock from existing land cover and dead canopy. The analysis also includes an estimate of annual carbon sequestration from the existing land cover.
2. Vineyard Scenario: The Vineyard Scenario considers post-development conditions within the boundaries of the proposed development area and gives credit for landscaping activities in the project site. The calculations consider the following four components: carbon stock in land cover type with project implementation, carbon stock from dead canopy, carbon sequestration from proposed land cover types as well as site enhancements such as conservation management practices and landscaping. The CA COMET-Planner tool was used to evaluate the benefit of several conservation management practices outlined in the ECP, including compost application(s), permanent legume mix cover crop, mulch applications, and no-till management.

Construction Emissions

Equipment Emissions: As discussed in **Section III (Air Quality)**, three County Certified EIRs 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 from these EIRs. The Circle-S Ranch EIR anticipated approximately 4,293 metric tons (MT) CO_2e of construction equipment emissions for a 459-acre vineyard development, resulting in approximately 9.4 MT CO_2e of construction equipment emissions per acre of vineyard development.[16] Using this emission factor it is anticipated that GHG emissions from construction equipment associated with the proposed 1.24 gross acres of vineyard would be approximately 11.6 MT CO_2e (1.24 acres multiplied by 9.4 MT CO_2e).

Carbon Stock Emissions: Carbon Stock emissions are emissions resulting from removal of approximately 1.24 acres of existing vegetation and planting of vineyard as estimated in the project-specific GHG analysis (HDVine LLC, January 2024 – **Exhibit D**). Total change in carbon stock for the proposed development area due to the proposed project is estimated to be approximately 62 MT CO_{2e} (**Table 6**).

[15] "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 CO_2. 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).

[16] 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.

Table 6 – Estimated Proposed Development Area Carbon Stocks/Storage

Vegetation Type	Average Carbon Storage in MT CO_2e
Baseline Scenario	
Existing Land Cover: Shrubland[a] & Grassland	70
Dead Canopy	0
Baseline Scenario Total	70
Vineyard Scenario	
Project Land Cover Types: Vineyard & Grassland	8
Dead Canopy	0
Vineyard Scenario Total	8
Net Change in Carbon Storage	**62**

a. Shrubland assumed for non-regenerated forest portion.
Source: HDVine, January 2024 – **Exhibit D**.

Operational Emissions

Operational Equipment Emissions: The referenced vineyard development EIRs also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential construction equipment emissions per acre of vineyard development were derived using the most conservative emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_2e of annual operational emissions for a 560-acre vineyard, resulting in approximately 0.67 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 1.24-acre agricultural development would be approximately 0.83 MT CO_2e per year (1.24 multiplied by 0.67 MT CO_2e per year).

Operational Sequestration Emissions: As shown in **Table 7**, based on the site specific GHG analysis (HDVine LLC, January 2024 – **Exhibit D**), carbon sequestration in the proposed development area including change in land cover (i.e., the conversion of existing vegetation to vineyard), conservation management practices and landscaping would increase by approximately 174 MT CO_2e over an assumed project life of 40 years.

Table 7 – Change in Carbon Sequestration in the Proposed Development Area

Vegetation Type	Average Carbon Sequestration in MT CO_2e
Baseline Scenario	
Existing Land Cover: Shrubland[a] & Grassland	74
Baseline Scenario Total	74
Vineyard Scenario	
Project Land Cover Types: Vineyard & Grassland	-7
Conservation Management Practices and Landscaping	255
Vineyard Scenario Total	248
Net Change in Carbon Sequestration	**174**

a. Shrubland assumed for non-regenerated forest portion.
Source: HDVine, January 2024 – **Exhibit D**.

Project Emissions

Based on the above estimates and as shown in **Table 8**, the proposed project would sequester enough carbon for a net positive balance of approximately 67 MT CO_2e over the 40-year time span used in the evaluation. The increase in sequestration with the proposed project would more than offset the loss in carbon storage from removal of existing vegetation, and the generation of construction and operational emissions associated with the project.

Table 8 – Estimated Overall Project-Related GHG Emissions

Source	MT CO_2e
Construction vehicles and equipment	11.6
Loss of carbon stock from removal of existing vegetation: shrubland and grassland	70
Loss of carbon sequestration from removal of existing vegetation: shrubland and grassland[a]	74
Operational vehicles and equipment[a]	33.2
Gain in carbon stock from project land cover	-8
Gain in carbon sequestration from vineyard, conservation management practices and landscaping[a]	-248
Total	-67.2

a Estimated over a project lifetime of 40 years
Source: Table compiled by ESA based on HDVine, 2024

Therefore, the proposed project would meet the no net increase threshold and therefore would not generate GHGs, either directly or indirectly, that may 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.

	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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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 proposed vineyard is provided within Supplemental Project Information forms on file at the Planning Department.

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).

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 on the project site within the proposed staging area called out on the plan set (see **Exhibit A-10**). Fertilizers (i.e., 12-26-26 and 0-0-30) would be applied via drip and foliar up to two times per year. Mildewcides (i.e., sulfur) would be applied up to five times per year and herbicides (i.e., Glyphosate) would be sprayed up to two times per year.

The project site does not contain the presence of vernal pools, marshes, or wetlands associated with the proposed development area; therefore, no waterways have the potential to be significantly impacted by the 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 the 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 school (Foothills Adventist Elementary) is located approximately 3 miles south of the project site. There are no schools proposed 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). Therefore, no impact would occur.

e. The closest airport to the project site is Pope Valley Airport, located approximately 7 miles northwest of the project site. No portion of the proposed project is within an airport compatibility zone identified in the Airport Compatibility Plan (Napa County Airport Land Use Compatibility Plan, and Napa County GIS Airport layer). Therefore, no impact would occur.

f. During construction, there would be negligible numbers of workers (up to ten employees) visiting the project site on a temporary basis to implement the project and install vineyards. Up to ten employees would also visit the site on a seasonal basis for subsequent vineyard operations. 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 (CalFire 2007 - https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones). However, the risk of fire in vineyards is low due to the limited amount of fuel, combustibles, and ignition sources that are 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 vineyards results 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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
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;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

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 March 28, 2022, August 9, 2022, and November 8, 2022, the Napa County Board of Supervisors adopted resolutions proclaiming a continued state of Local Emergency due to the 2021-2022 drought. On June 7, 2022, the Napa County Board of Supervisors provided direction regarding interim procedures to implement Executive Order N-7-22 for issuance of new, altered or replacement well permits and discretionary projects that would increase groundwater use during the declared drought emergency. The direction limits a parcel's groundwater allocation to 0.3 AF 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 (WAA) would suffice to assess potential impacts on groundwater supplies. Although the Governor, through Executive Order No. N-5-23, rolled back some of the drought emergency provisions in late March 2023, due to current water conditions, the Governor's Emergency Order N-7-22 remains in place and the remaining criteria for the County's interim actions and procedures also remain. On May 30, 2023, the Napa County Board of Supervisors terminated the Local Emergency due to the 2021-2022 drought but acknowledged that there are still adverse conditions that will continue to affect the Napa Valley groundwater subbasin and the need to continue groundwater management efforts including the interim actions and procedures still exists.

The project site is located in Dutch Henry Creek watershed, which flows into the Napa River which is a tributary to San Pablo Bay. The Napa River is designated critical habitat for steelhead (Napa County GIS USFWS critical habitat layer). 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 closest blueline stream is Dutch Henry Creek, located about 650 feet west of the proposed development area.

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 #P22-00212-ECPX 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. The County requires all ECPA applicants to complete necessary water analyses to document that sufficient water supplies are available for a proposed project.

   The proposed vineyard would be irrigated using groundwater supplied by one of the two existing groundwater wells located in the project site (referred to as the "Upper Well"). No water for frost protection or heat protection is proposed as part of the project. Further, no surface water would be used to irrigate the vineyard.

   Because this project is located outside of the GSA Subbasin, a parcel-specific WAA was prepared to determine if the proposed increase in groundwater water demand because of the proposed project would result in a significant impact to groundwater supplies (HDVine LLC, Revised August 8, 2023 – **Exhibit E**). The WAA estimates the onsite groundwater recharge and both existing and proposed use to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Documented adopted by the County on May 12, 2015. Additionally, a review of potential drawdown impacts is included in the analysis due to the proximity of one neighboring well located within 500 feet of the project's Upper Well, and a review of potential impacts to surface waters is included due to the proximity of Dutch Henry Creek approximately 650 feet west of the project well.

   Well Interference:

   Per the County's WAA Guidance Document, wells pumping less than 30 gallons per minute (gpm) for periods less than 24-consecutive hours will likely have negligible drawdown at distances beyond 25 feet in a confined aquifer. A well test (by Ray's Well Testing Service Inc., 8/11/21) recorded a stabilized flow rate of 22.5 gpm for the project site's Upper Well that is proposed for use on the new vineyard. No irrigation sets would exceed a maximum duration of 8 to 10 consecutive hours in any 24-hour period. As such, the project well meets the criteria stated in the WAA Guidance Document (pumping less than 30 gpm for less than 24-hrs) and no neighboring wells are less than 25 feet away. Given the construction of the wells on and off-site as well as operating constraints, no measurable drawdown is expected at the one neighboring well located within 500' because of project well use parameters (HDVine LLC Revised August 8, 2023 – **Exhibit E**).

   Surface Water Interference: According to the County's WAA Guidelines (Napa County, 2015), if a project well is within 1,500 feet of a Significant Stream a Tier 3 WAA is required. Dutch Henry Creek is a designated Significant Stream.

   The County's WAA Guidance Document provides well set-back standards and construction criteria that if applicable would preclude any significant adverse effects (if any) on surface waters. Per the WAA Guidance Document, very low flow wells (up to 10 gpm) may be 500 feet or more away from a surface water channel. Although the Upper Well was tested at 22.5 gpm in 2021, the operational yield of the well would not exceed 3 gpm, based on proposed water uses.

   The following items further limit any negative impacts to surface waters because:

   1. The project well (i.e., Upper Well) does not meet the WAA definition of a moderate to high pumping capacity well (casing diameter greater than 6 inches and capable of producing more than 30 gpm).
   2. Annular seal of at least 50 feet.
   3. Uppermost perforations are 200 feet below grade (100+ feet deeper than recommended).
   4. The hydraulic conductivity of the aquifer (ash, volcanic rock) is likely quite low (<0.5 feet/day), which indicates a lower potential zone of influence for the pumping well.

   Pumping at rates greater than 10 gpm from the project well could affect flows in the stream and the neighboring project well, which would be considered a significant impact. Implementation of **Mitigation Measure HYDRO-1** would reduce impacts to less than significant by ensuring that the pumping rate from the project well is less than 10 gpm.

Mitigation Measure HYDRO-1: The owner/permittee shall install a flow regulation device on the project well (Upper Well) limiting the pumping capacity to not exceed 10 gallons per minute. Documentation of the installation of the flow regulation device shall be provided to the County within 90 days of project approval.

Groundwater from the "Lower Well" is currently used to irrigate approximately 0.75 acre of existing vineyard in the project site. The existing groundwater demand for the existing vineyard is 0.25-acre feet per year (AF/yr). The Upper Well would be used for the future vineyard and residential uses under construction. The total additional proposed water demand, which includes 0.31 AF/yr for the 1.09 net acres of proposed vineyard and 1.08 AF/yr for the residence (including a pool house, pool and landscaping) is 1.39 AF/yr. The total post-project water demand for the project site with all uses (existing and proposed) would be 1.64 AF/yr

Public Trust:

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). As disclosed and assessed in this Initial Study and the WAA, the County concludes that no harm to (or less-than-significant impacts on) public trust resources would result from the proposed project as Mitigated under **Mitigation Measure HYDRO-1**.

Groundwater Recharge:

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, which uses an average annual rainfall of 37 inches per year over approximately 5.67 acres of the project site's aquifer recharge area available for recharge and a 14% deep percolate recharge estimate, estimates the average annual groundwater recharge to be approximately 2.45 AF/yr (see **Exhibit E** for details and calculations). The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall, and therefore inherently includes drought year conditions. The post-project site is estimated to have an annual future groundwater demand of 1.64 AF/yr, which is below the estimated average annual recharge volume of 2.45 AF/yr identified in the WAA.

Considering: i) anticipated annual water use of the proposed project and project well groundwater recharge area of approximately 1.64 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 2.45 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; and iii) implementation of **Mitigation Measure HYDRO-1** and incorporation of the standard groundwater management condition of approval below to reduce potential impacts associated with groundwater use, the proposed project (if approved) would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Groundwater Management, Wells – Condition of Approval: This condition is implemented jointly by the Public Works and PBES Departments:

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 project 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.

In order to support the County's groundwater monitoring program, well monitoring data as discussed above shall be provided to the County if the Director of Public Works 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 Director of Public Works determines that the well could be useful in supporting the program.

In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the 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.

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 vineyards 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.

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 of 75% for the proposed vineyard block, and the annual 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 A-1** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include fiber rolls/wattle sediment barriers, silt fences, straw bale dikes, 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 in 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 HDVine LLC (May 2023 – **Exhibit F**). Such analyses are usually carried out through modeling with WinTR-55, a Windows application based on USDA Technical Release 55, Small Watershed Hydrology. The protocol for this method requires plotting a watershed that encompasses the project and drains to an applicable "point of interest" or outlet. However, the proposed project's analysis focuses on the pre- vs. post-project land cover conditions of the proposed development area. The analysis demonstrates that pre-development cover conditions and post-development cover conditions are unchanged, both with an area weighted average Cn value of 71. These calculations indicate that the proposed project would not result in increases in peak flow and runoff. 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, or considerable on or offsite erosion, siltation, or flooding.

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. As discussed above, no overall increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and sedimentation is anticipated under post-project conditions. 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.

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.[17] Furthermore, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan will 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.

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. pg. 10-20). Therefore, no impact would occur.

e. The proposed project would not have an adverse impact on water quality because the ECP 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

[17] 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**).

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 annual soil loss and sedimentation by approximately 16 tons per acre, 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.

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?	☐	☐	☐	☒
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?	☐	☒	☐	☐

Discussion

a. The project site is in a rural area of Napa County and the nearest established community is Calistoga, approximately 2 miles northwest of the project site. The project site contains approximately 0.75 acre of existing vineyard and associated vineyard infrastructure, access roads, and two existing groundwater wells. The central portion of the project site is planned for a residence. Surrounding land uses consist primarily of valley floor vineyard developments west of Silverado Trail and a mix of residential and undeveloped woodland east of Silverado Trail. 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 measures 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 annual soil loss and potential sedimentation by approximately 16 tons per acre 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 maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1** through **BIO-3** is consistent with Policies CON-3 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. A Biological Resources Reconnaissance 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-3**. 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-3**, 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.
- With implementation of **Mitigation Measures BIO-1** through **BIO-3**, the proposed project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- The proposed project is consistent with CON-16, which requires discretionary projects to prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey Report was prepared for the proposed project (**Exhibit B**).
- 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 result in increases in peak flow and runoff.
- The proposed project is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- 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 Agriculture, Watershed and Open Space and is therefore consistent with Policy AG/LU-20.

For these reasons, the proposed project, with the mitigation measures and conditions of approval incorporated, would not be in 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 and Map 2-1, Version 1, November 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 resource area in Napa County is the Syar Napa Quarry, located approximately 25 miles southeast of the project site. Proposed site improvements and development of vineyard in 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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Discussion

a-b. Surrounding land uses consist primarily of valley floor vineyard developments west of Silverado Trail and a mix of residential and undeveloped woodland east of Silverado Trail. The nearest offsite residence to the proposed development area is approximately 310 feet north of the proposed development area.

Activities associated with installation of the proposed project, including earthmoving, and subsequent vineyard operations, could generate noise levels above existing conditions. Several different types of equipment would be necessary for implementation and operation of the proposed project, including a bulldozer, tractor, excavator, backhoe, dump truck, water truck, and ATVs and passenger vehicle, and/or light trucks. **Table 9** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 9**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 9 – 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	Woodchipper	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 10 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 10 – Estimated Distance to dBA Contours from Construction Activities[1]

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 approximately 70 dBA at the nearest existing offsite residences.

The nearest offsite residence approximately 310 feet north may experience limited ground vibration during construction; however, this impact would be less than significant due to the short-term and limited nature of construction.

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, Version 1, November 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 a tractor, backhoe, grape haul truck, and ATVs and passenger vehicle and/or light trucks, which would occur on a temporary and seasonal basis. **Table 11** 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 11 – Estimated Distance to dBA Contours from Farming Activities[1]

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 approximately between 60 and 65 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 approximately 70 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.

c. 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 GIS: Napa Airport Compatibility Zones and USGS Quad layers). 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)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

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 vineyards. It does not involve the construction of new homes, businesses, roads, 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. 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?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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 (TIS Guidelines, February 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 is developed with approximately 0.75 acre of vineyard and associated vineyard infrastructure, access roads, and two groundwater wells. The project site is primarily accessed from an existing private driveway off Silverado Trail North. 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 five vehicle round 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 two round trips per day. 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 around 6 a.m. and departing around 3 p.m.

Because the proposed project would be expected to generate up to approximately five daily round trips during construction and peak operations and up to two 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.

c. The proposed project would utilize the existing private driveway off Silverado Trail North for project development. The proposed project does not include roadway improvements and/or modifications to the existing driveway or Silverado Trail North 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 four vehicles) during harvest periods which last up to 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	☐	☐	☒	☐
a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in 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

Notice of the proposed project was sent certified mail to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on June 21, 2022. No requests for consultation were received as a result of the AB-52 notification. The consultation period is considered closed because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitations were provided.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project's cultural resources study (Parker, May 2022), no cultural resources were identified in the proposed development area. Furthermore, no resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified in the development area. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

As such, the proposed project, with the Cultural Resources conditions of approval, would result in less-than-significant impacts to Tribal Cultural Resources, including those that may be eligible for the California Historical Resources Information System or local register, or cultural resources as defined in Public Resources Code Section 5024.1(c).

	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?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Discussion

b. 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 within the proposed development area, with the exception of the main line that would connect the groundwater well to the proposed development area (see **Exhibit A-1**).

The proposed project also would include the installation of a limited number of onsite storm water drainage features such as fiber rolls/wattle sediment barriers, silt fences, straw bale dikes, 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)** and **IX (Hazards and Hazardous Materials)**, would result in a less-than-significant impact.

b. Typically, the annual irrigation season ranges from late May to September. Water use for frost protection is not proposed. The proposed vineyard would use approximately 0.31 AF/yr to irrigate the approximately 1.09 net acres of new vineyard. The WAA prepared by HDVine LLC (**Exhibit E**) concluded that after full development, total groundwater demand for the new 1.09 net acres of vineyard in the project site and potential future demands in the project site is estimated to be 1.64 AF/yr. Based on site-specific recharge and analysis the project site is estimated to have a total average annual groundwater recharge of 2.45 AF/yr. The project well groundwater recharge area's estimated groundwater demand of 1.64 AF/yr with the proposed project represents approximately 67% of the average annual groundwater recharge.

Although there is uncertainty regarding the volume of groundwater storage, the magnitude of storage relative to use indicates that there is water stored in the aquifer that would buffer imbalances in recharge and use that occurs in dry years. Higher rates of recharge in wet years compensate for extreme dry years when water use exceeds recharge. Water use greater than recharge may occur in some years, but aquifer storage is believed to be sufficient to maintain access to groundwater in wells in the project well groundwater recharge area.

Therefore, the proposed project 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. Given the small number of workers that the proposed project would generate for construction and operation, wastewater generation by the proposed project would not be substantial enough to affect wastewater treatment capacity. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.

d-e. Minimal rocks are expected, but any encountered during development of the proposed project would be stored or buried within the proposed development area or used for vineyard avenues or landscaping. 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. 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 statues 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may 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 slop instability, or drainage changes?	☐	☐	☒	☐

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as a Very High Fire Hazard Severity Zone (CalFire, 2023; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone). Typical slopes within the project area range from 22% to 40%, with an overall average of 30%. The general topography of the project site is moderately to steeply sloped, ranging from approximately 300 to 450 feet above mean sea level. The topography across the project site varies greatly with slopes ranging from flat to in excess of 50%.

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?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
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 #P22-00212-ECPX, 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. No special-status plant species or their habitat has been identified in the project site, and four special-status wildlife species have a potential to occur within the proposed development area: pallid bat, fringed myotis, white-tailed kite, and purple martin. The proposed development area also contains coast live oak woodlands, which is a biological community considered sensitive by Napa County. With incorporation of **Mitigation Measures BIO-1**, oak woodland outside of the proposed development area would be avoided and preserved. Implementation of **Mitigation Measures BIO-2** and **BIO-3** would avoid potential impacts to special-status bat and bird species, as well as protected bird species.

   The proposed project includes the installation of wildlife exclusion fencing. 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. While the proposed project (vineyard) would result in portions of the site having reduced potential for on-site wildlife movement, the proposed fencing would be limited to the one vineyard block within the proposed development area. 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.

   The closest blueline stream is Dutch Henry Creek, located about 650 feet west of the proposed development area and no impacts on water quality are anticipated.

   With incorporation of standard conditions to protect cultural resources that may be discovered accidentally, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**).

   Therefore, the proposed project as designed with the incorporation **Mitigation Measures BIO-1** through **BIO-3** and conditions of approval, would have a less-than-significant potential to degrade the quality of the environment.

b. The project site is located in the Dutch Henry Creek watershed, which flows into Napa River and San Pablo Bay. Dutch Henry Creek Drainage area contains approximately 2570.6 acres. In 1993, vineyard acreage within this drainage was approximately 121.066 acres, or 4.7% of the drainage. Since 1993 approximately 81.85 acres of additional vineyard (or 3.18% of the drainage) have been developed to vineyard, resulting in approximately 7.89% of the drainage (or approximately 202.9 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Dutch Henry Creek Drainage, that there are approximately 196.484 acres (7.64% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 202.9 acres), results in a total potential build out of approximately acres or approximately 15.5% 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., Dutch Henry Creek watershed) over the last 29 years (1993-2022) were used to project an estimation of vineyard development for the next three to five years. Over the past 29 years within the Dutch Henry Creek Drainage, approximately 6.99 acres of agriculture were developed per year (202.9 divided by 29). 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 20.97to 34.95 acres over the next three to five years within the Dutch Henry Creek 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 (#P22-00212-ECPX) 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. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Table 8**). As discussed in **Section VIII (Greenhouse Gas Emissions)**, the proposed project is not anticipated to result in substantial or significant GHG emissions and includes the installation of grapevines and a permanent no-till cover crop, which would off-set potential impacts related to reductions in carbon sequestration. 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 standard conditions of approval.

Biological Resources - Section IV:

Project-specific biological resources reconnaissance surveys (WRA Environmental Consultants, June 2022 – **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 reconnaissance 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 CNDDB, CNPS, and USFWS databases. As discussed in **Section IV** (**Biological Resources**), no special-status plant species were identified in the proposed development area. Approximately 1.17 acres of coast live oak woodland are located within the proposed development area. With implementation of **Mitigation Measure BIO-1**, the project would avoid and preserve 2.34 acres of the project site's oak woodland, reducing potentially significant impacts to a less-than-significant level. Potential direct and indirect impacts to potentially occurring special-status and protected animal species (pallid bat, fringed myotis, white-tailed kite, and purple martin and other protected birds) would be avoided and reduced through implementation of **Mitigation Measures BIO-2** and **BIO-3**. No streams are located near the proposed development area. Therefore, the 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 cultural resource reconnaissance (Archaeological Research, May 2022) did not identify cultural resources in the proposed development area. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidently, significant impacts to cultural and tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified conditions of approval, the proposed vineyard development project would have a less-than-significant project-specific and cumulative impact on cultural and tribal cultural resources.

Geology and Soils - Section VII:

Annual soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 16 tons per acre as compared to existing conditions (**Table 5**). The reason for this reduction is 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 Dutch Henry Creek watershed. 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 WAA prepared by HDVine LLC (Revised August 8, 2023 – **Exhibit E**) indicate that the proposed development consisting of approximately 1.09 net acres of planted vineyard would result in approximately 0.31 AF/yr of groundwater use, with a total water demand of approximately 1.64 AF/yr in the project site with all uses (existing and proposed). The proposed project would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels given that anticipated annual water use of the proposed project is below the anticipated annual groundwater recharge rate screening criteria (or allocation); overall water use during a theoretical drought period would not be expected to significantly impact groundwater levels beneath the project site; there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and implementation of Mitigation Measure HYDRO-1 and incorporation of the standard groundwater management condition of approval would reduce potential impacts associated with groundwater use.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis was prepared by HDVine LLC (May 2023 – **Exhibit F**). 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 F**). 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 measures 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], Section XI [Land Use and Planning] 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:

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