COUNTY OF NAPA
PLANNING, BUILDING AND ENVIRONMENTAL SERVICES DEPARTMENT
1195 THIRD STEET SUITE 210
NAPA, CA 94559
(707) 253-4417

Initial Study Checklist
(form updated January 2019)

1. **Project Title:** Miller Vineyard Track I Erosion Control Plan Application (ECP) #P22-00153-ECP

2. **Property Owner(s):** Henry Miller Trust

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

4. **Project Location and APN:** 3906 Silverado Trail, Calistoga
   APN: 021-030-006-000
   Section 10, Township 8 North, Range 6 West, Mt. Diablo Principal Meridian
   Longitude - 122°30' 27.64"W; Latitude 38°33' 45.14"N

5. **Project Sponsor:** Bartelt Engineering
   Agent: Richard Paxton (Project Engineer)
   (Registered Professional Engineer No. 84643)
   1303 Jefferson Street, Suite 200 B
   Napa, CA 94559

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

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

8. **Background & History:** The approximately 28.77-acre (27.76 according to narrative and ECPA application) parcel includes a single-family residence, two (2) barns, sheds, three (3) wells, a pool, a water tank, a driveway, 1.0 acre of existing vineyard (installed in approximately 2009 without ECPA approval) and associated residential landscaping. No changes to the existing structures or vineyard are proposed as part of this project. The property was burned in the 2020 Glass Fire and while the existing residence and accessory structures on the parcel survived, a large number of existing trees and vegetation were impacted. There is no history of intensive agriculture, quarrying or mining on the subject parcel barring the existing vineyard on site (planted by previous owner).

9. **Description of Project:**

The proposed project involves the clearing of vegetation, earthmoving, and installation and maintenance of erosion control measures associated with the development of approximately 7.0 gross acres of new vineyard (i.e., development area, proposed clearing limits; approximately 4.6 new net acres of vines and legalization of 1.0 acres of existing vineyards for a total of 5.6 net acres of vines) within four (4) vineyard blocks (3 new and 1 existing), located on an approximate 28.77-acre parcel (i.e., project site) (**Figure 3**). Average slopes within the development area range from 13 percent (%) to 23%, with 0.08 acres occurring on slopes over 30%. Trees within the proposed vineyards block were severely impacted by the 2020 Glass fire and a Notice of Emergency Timber Operations was granted in 2021 under Emergency Notice 1 – 21EM-00105 NAP for the removal of dead and dying trees on the subject property (**Exhibit F**). A Timber Harvest Permit (THP) (**Exhibit G**) is also currently under process for approval by CalFire for the harvesting of 4.5 acres of timberland and 1.5 acres of oak woodland to be permitted under the THP; this process will move forward once the ECP has been completed. 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 of the parcel. As such, the project has identified 5.4 acres of comparable mixed woodland habitat on slopes less than 30% to demonstrate no net loss in sequestration capabilities of the parcel post project. In total the applicant has identified 16.2 acres of douglas-fir forest and coast live oak woodland that will be permanently preserved, which includes 3.4 acres of land to be planted with a mix of Douglas-fir and native oaks as detailed in the Tree Planting Plan (**Exhibit B.1**). With the implementation of this replanting area, the preservation of said area, and the additional preservation of existing comparable vegetation canopy cover habitat the project is consistent with Napa County Code (NCC) 18.108.020.C, D and E and Policy CON-24 of the Conservation Element of the County of Napa General Plan. 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. Rock generated as a result of site preparation will be disposed of within the development footprint and used for erosion control measures. Rock may also be process and used for lining existing roads within the vineyard development. Temporary rock stockpiles and staging areas

would be located inside of proposed clearing limits. No grading activities or ground disturbance would occur outside of the proposed clearing limits. The vineyard would be irrigated with water sourced from an existing groundwater well, and pipelines would be located in existing roadways, proposed vineyard avenues and/or within the proposed clearing limits. There is existing deer fencing surrounding the property and no changes to the existing fencing is proposed as part of this project. No onsite chemical storage or mixing will occur, and all cleaning and washing of equipment will occur offsite as well. All roads required to provide access to the project site are existing and no new roads are planned as part of this project. [**Exhibit A** and **A.1**]

Erosion Control Measures: Temporary erosion control measures include sediment barriers such as silt fence and/or wattle sediment barriers, waterbars, straw bale dikes, and the application of straw mulch at a rate of 4,000 pounds per acre. Permanent erosion control measures include rolling dips and a permanent no-till cover crop maintained at a minimum vegetation cover density of 80% (all Blocks). Details of the proposed erosion control measures are provided in the Miller Vineyard ECP #P22-00153-ECP, dated May 2022 (Revised March 2023), prepared by Richard Paxton (Registered Professional Engineer No. 84634) of Bartelt Engineering, Napa, California (**Exhibit A**).

Earthmoving*:* Earthmoving and grading activities associated with the installation of erosion control measures and subsequent vineyard operation include, but are not limited to vegetation removal, soil ripping, rock removal, disking, and development of erosion control measures.

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

a. Clearing and grubbing of existing vegetation (grass, shrubs, trees, etc.) and root systems
b. Minor re-contouring of existing topography to promote sheet flow
c. Ripping as needed to fracture subsoils and rock to a depth of approximately 30 inches to prepare soil for planting and to incorporate soil amendments (ripping to be limited to vineyard block areas shown on the plans)
d. Mechanical and hand rock raking to remove loose rocks from the ground surface
e. Discing and harrowing to prepare seedbed for vegetative erosion control measures
f. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 4 foot by 7 foot spacing pattern.
g. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
h. Ongoing operation and maintenance of the vineyard, which includes the following: vine management (pruning, fertilization, pest and disease control), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. No pre-emergent herbicides would be used, and contact or systemic herbicides may be applied in the spring. The width of the spray strip shall be no wider than 12 inches in order to achieve 80% vegetative cover (based on a 4 foot by 7 foot row spacing).

Table 1 lists a general schedule for the construction of the proposed project as identified in #P22-00153-ECP and **Table 2** outlines typical general ongoing vineyard operations. The final implementation schedule is pending action on #P22-00153-ECP.

Table 1 – Implementation Schedule

April 1	Commence clearing and tillage operations.
October 15	All tillage and erosion control complete.
October 15[1]	All winterization complete, including seeding, straw mulching, and straw wattle installation.

[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 – Annual Operations Schedule

January to April	a. Prune vines. b. Weed control.
April 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.

Project construction activities are anticipated to require up to approximately 50 one-way worker trips per day for work crews of between 2-3 workers per vehicle, which includes trips anticipated for project mobilization and demobilization for equipment and materials delivery and pick up. Construction equipment is anticipated to include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles.

Vineyard operations, including pruning and harvest is anticipated to require up to approximately four one-way worker trips per day for work crews of approximately 10-15 workers who are anticipated to carpool. Approximately two additional one-way trips per day are anticipated for grape haul trucks during harvest which is expected to be one to five days. Additionally, four one-way trucks trips are anticipated to be required during the establishment of the 3.4-acre replanting area for delivery of water (water will be stored in a 250 portable tank). Equipment for vineyard operations is anticipated to include a tractor/trailer, a mower, a forklift, grape trucks, pickup trucks, passenger vehicles and other small

to medium service vehicles (i.e., ATV). Vineyard operations would result in a potential maximum of 8 daily trips, which is less than the 110 VMT trips noted by the Air Quality and Greenhouse Gas Analysis prepared for the project (**Exhibit H**); whereby projects are considered to have a less than significant impact on transportation GHG levels.

Implementation of the proposed project would be in accordance with the Miller ECP prepared by Bartelt Engineering (March 31, 2023 - **Exhibit A-1**). 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).

10. Describe the environmental setting and surrounding land uses.

The proposed project would occur on one parcel totaling approximately 28.77 acres located at 3906 Silverado Trail in Napa, California (**Figures 1-3**). The project site is located approximately 3.3 miles southeast of the City of Calistoga. The parcel consists of a single-family residence, two (2) barns, a pool, sheds and associated infrastructure, landscaping, 1 acre of existing vines installed without benefit of an ECP, and access roads. The nearest off-site residences to the project are located approximately 510 feet to the north, 790 feet to the southwest and 820 feet to the northwest of the project site. The parcel also contains undeveloped areas, consisting of wild oat and annual grassland, douglas-fir forest, and coast live oak along with some small communities of valley oak (avoided), and white oak (avoided). Surrounding land uses include rural residences, vineyards, and open space.

The project site is located within the Napa River-Bale Mill Reach and Dutch Henry Creek watersheds. There are no blue-line streams located on the subject parcel. Dutch Henry Creek is located 0.25 miles southwest of the project site. Dutch Henry Creek is a blue-line stream that flows southerly for less than a mile at which point it mergers with the Napa River. There is one ephemeral drainage located along the northern property line that drains downslope before crossing under Silverado Trail and merging with Dutch Henry Creek. As proposed the project maintains the required 35-foot setback from the identified ephemeral drainage located on site (**Exhibit A** and **A-1**).

General topography of the parcel is gently to very steeply sloped (13%-60%) with all aspects represented, and elevations ranging from 300 to 530 feet above mean sea level (msl), within the eastern hills of Napa Valley. The project site contains slopes within the development area that are gently to moderately sloped (13%-26%). The proposed vineyards blocks are located on western-facing slopes, with elevations ranging from approximately 380 to 530 feet above msl. The Napa GIS database does not indicate the presence of landslides in the vicinity of the property.

The nearest unnamed fault is located approximately 4.0 miles south of the project site, and runs in a north-south direction. Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 2014, USDA 1978, and USDA 1972) as Bale clay loam (0-2% slopes); Boomer loam volcanic bedrock (2-35% slope, MLRA 15); Boomer gravelly loam, volcanic bedrock (11-43% slopes, MLRA 15); and Boomer gravelly loam, volcanic bedrock (14-60% slopes, MLRA 15) (Biological Resource Reconnaissance Survey, March 2023 - **Exhibit B**).

The vegetation types in the project parcel generally consist of coast live oak woodland (12.5 acres), valley oak woodland (0.2 acres), white oak woodland (0.1 acres), douglas fir forest (9.8 acres), developed and landscaped area which includes an existing 1.0 acre vineyard [Block A] (1.8 acres), annual grassland (3.3-acres). The 7.0 acres (5.6 net acres of vines; 4.6 acres new, 1.0 acre existing) of project area/disturbance proposed for conversion to vineyard consist of the following community types: developed and landscaped area (1.0-acre), wild oat & annual grassland (0.6-acres), oak woodland (4.0-acres) and douglas-fir forest (1.4-acres). As noted earlier none of the Valley Oak or White Oak will be impacted by the proposed project.

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
California Department of Fish and Wildlife (CDFW) (T)
U.S. Army Corps of Engineers (USACE) (R)
Regional Water Quality Control Board (Regional Water Board) (R)
California Department of Forestry and Fire Protection (R)

Other Agencies Contacted
Middletown Rancheria
Mishewal Wappo Tripe 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 to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on June 21, 2022. As of July 12, 2022 there was only one response, from the Yocha Dehe, who did not raise concerns regarding the project.

*This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.*

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, where necessary, a visit to the site. For further information, see the environmental background information contained in the permanent file on this project.

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted by the applicant and filed by the applicant in conjunction with ECP #P22-000153-ECP 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:

- Bartelt Engineering, Submittal May 2022 (Revised March 2023), Erosion Control Plan, Miller Vineyards, 3906 Silverado Trail (**Exhibit A**).
- Bartelt Engineering, May 2022 (Revised March 2023), Erosion Control Plan Narrative, Miller Vineyards, 3906 Silverado Trail (**Exhibit A-1**).
- Forest Ecosystem Management and Salix Natural Resource Management, November 2021 (Revised March 2023), Biological Resources Reconnaissance Survey Report, Miller THP/Conversion, 3906 Silverado Trail, Calistoga, Napa County, California (**Exhibit B**).
- Environmental Resource Management, May 2023 (Revised June 2023), Tree Planting Plan (**Exhibit B-1**)
- Forest Ecosystem Management, 2021 and 2022, Northern Spotted Owl Assessment, Miller THP/Conversion (**Exhibit B-2**)
- Bartelt Engineering, January 2023, Hydrology Evaluation, Miller Vineyard, 3906 Silverado Trail, APN: 021-030-006 (**Exhibit C**).
- Bartelt Engineering, May 2022, Universal Soil Loss Evaluation Analysis, Miller Vineyards, 3906 Silverado Trail, APN: 021-030-006 (**Exhibit D**).
- O'Connor Environmental, Inc. and Bartelt Engineer, October, 2023, Water Availability Analysis, Miller Vineyards, 3906 Silverado Trail, APN: 021-030-006, Napa County, California (**Exhibit E**).
- Flaherty Cultural Resource Services (FCRS), Cultural Resource Reconnaissance, August 2015, Cultural Resource Reconnaissance of 28.7 acres near Calistoga, Napa County California, APN 021-030-006, 3906 Silverado Trail.
- Environmental Resource Management, Emergency Notice of Timber Permit (**Exhibit F**)
- Environmental Resource Management, Completion Report Emergency Timber Harvest (**Exhibit F.1**)
- Environmental Resource Management, Timber Harvesting Plan: Miller Vineyard, 9-7-2023 (**Exhibit G**)
- Bartelt Engineering, November 2022, Air Quality and Greenhouse Has Analysis for the Miller Vineyard Project, Miller Vineyards, 3906 Silverado Trail (**Exhibit H**)
- Application Submittal Materials (**Exhibit I**)
- Project Revision Statement (**Exhibit J**)
- Site inspections conducted by Napa County Planning and Engineering Division staff conducted on June 1, 2022.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

On the basis of this initial evaluation:

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

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

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

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

_____ _____

Signature Date

Dana Morrison

		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)	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 proposed project would not have a substantial adverse impact on a scenic vista or on scenic resources. The project site is located adjacent to Silverado Trail, the closest County viewshed road. The vineyard development site is not located on a prominent hillside, a major or minor ridgeline (Napa County GIS, Ridgelines Layer), or within a scenic corridor (Napa County GIS, Scenic Corridors Layer). There are two (2) minor ridgelines approximately 4,000 feet northeast of the proposed project and approximately 4,500 feet southeast, while the nearest major ridgeline in more than 8,000 feet northeast. The majority of the parcels in the area are currently developed with agricultural and residential uses, as well as existing open space. There is no ridgeline between the subject parcel and Silverado Trail, however, given the slopes and existing residence on the parcel the visibility of the proposed vineyard blocks from public roads is nonexistent as it is shielded. Furthermore, any vineyard that is visible will blend in with the surrounding parcels which contain a mix of residential, open space, as well as vineyard development. The proposed project would not substantially damage scenic resources, as there are no significant rock outcroppings or historic buildings within the proposed development area. The proposed vineyard development has been designed in a way that would complement the natural contours of the project site, and would avoid the required ephemeral stream setbacks. The proposed project is consistent with the Napa County AWOS land use and with surrounding land uses; therefore, the proposed project is anticipated to result in less than significant impacts to the scenic vistas, scenic resources and public views.

c.

The proposed project would not substantially degrade the existing visual character of the site or its surroundings. While the proposed project would remove up to 5.4 acres, including a combination of standing dead trees consisting of predominantly coast live oak woodland and douglas-fir forest, the project would avoid (8.5 acres of acres of oak woodland and 8.4 acres of coniferous forest) the majority of the trees on the parcel. In addition, the project proposes to replant 3.4 acres of oak and coniferous canopy, and permanently preserve that area along with an additional 12.8 acres of existing oak woodland and coniferous forest for a total preservation area of 16.2 acres). In 2001, Napa County adopted a Viewshed Protection Ordinance for the purpose of preserving the scenic quality of Napa County. The ordinance provides development guidelines to 1) minimize man-made structures and grading on views of existing landscapes and open spaces as seen from designated public roads within the County; and 2) new hillside development with slope areas greater than 15% that may be within 25 vertical feet of a ridgeline. Silverado Trail, the closest designated scenic public road from the project, is located approximately 500 feet west of the proposed project, and the grading associated with the project would be only partially visible from portions the Silverado, though predominantly screened due to existing topography, vegetation (existing and proposed as part of this ECP) and development. No structures are proposed as part of this project; therefore, the proposed project would not be subject to the provisions of the Viewshed Protection Ordinance. Less than significant impacts are anticipated.

d.

Proposed agricultural operations on the parcel would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project parcel and in the surrounding area, which includes vineyard and agricultural uses. The proposed project would include nighttime harvesting and applications of sulfur (from 4 a.m. to dawn) occurring approximately five (5) nights per year. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime activities. While some nighttime

activities may occur for limited periods, the project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses; therefore, resulting 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 FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the 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 Important (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 Napa County Important Farmland 2016 map prepared by the California Department of Conservation, Division of Land Resource Protection identifies the development area as Other Land (X) with the area of the existing vineyard block is noted as Farmland of Statewide Importance. The existing vineyard block that is identified as Farmland of Statewide Importance is being maintained and legalized under this proposed ECP. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, resulting in no impact.

b.

The project site has a General Plan designation of Agriculture, Watershed and Open Space (AWOS) and is zoned Agricultural Watershed (AW). Therefore, the establishment of vineyard totaling approximately 7.0 gross acres (5.6 net vine acres) is consistent with project site's land use and zoning designations. The subject property does not have a Williamson Act contract associated with it. Therefore, the proposed project would not conflict with its land use designation or a Williamson Act contract resulting in no impact.

c.

The subject parcel and project is zoned 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). Approximately 4.3 acres of the proposed project area were identified as commercial timberland. The property owner has applied for both a Timber Harvest Permit (THP) as well as an Emergency Timber Harvest Permit. The Emergency Timber Harvest Permit was approved and implemented in September 2021 and dead and dying trees were removed from the parcel. The THP permit is currently under process with CALFIRE and will move forward once this associated ECP has been approved.

d.

The project proposes to remove approximately 1.4-acres of vegetation classified as Douglas Fir forest. "Forest Land" is defined by the state as "land that can support 10-percent 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." (Public Resource Code Section 12220(g)). With respect to timberland, the approximate 1.4-acres of Douglas fir forest is presumed to contain commercial timber species and which have been approved for removal under an Emergency Timber Harvest Permit and currently being process under a Timber Harvest Permit; according to California Forest Practice Rules, Title 14, California Code of Regulations, species Group A and those in Group B that are found on lands where the species in Group A now exist of have grown naturally. As stated in the Napa County General Plan, the County has approximately 40,000-acres of land that may contain commercial timber species (Napa County, 2009).

The Napa County General Plan anticipated the conversion of Forest Land, including timberland, to agricultural use, and the program-level EIR for the 2008 General Plan Update analyzed the impacts of up to 12,500 acres of vineyard development between 2005 and 2030, with the assumption that between approximately 950 to 5,700 acres of this development would occur on "Forest Land". In the analysis specifically, and in the County's view generally, the conversion of forest land, including potential timberland, to agricultural use would constitute a potentially significant impact only if there were resulting significant impacts to sensitive species, biodiversity, wildlife movement, sensitive biotic communities listed by the California Department of Fish and Wildlife, water quality, or other environmental resources addressed in this checklist.

While the proposed project would result in the conversion of potential timberland to non-timber use, because the subject property and project area are not located within a TPZ, the project site is not located within the commercial forest land base of California, and that the conversion of approximately 1.4-acres of the property's potential timberland represents a relatively small percentage of the timberland in the County, the proposed project is expected to have a less than significant impact on forest and timberland in the County. Also see the discussion in **Section IV (Biological Resources)** for additional discussion and disclosure regarding impacts to forest land.

Furthermore, as discussed in **Sections IV (Biological Resources), VI (Geology and Soils), VIII (Hazards and Hazardous Materials), IX (Hydrology and Water Quality),** and **XVIII (Mandatory Findings of Significance**) of this Initial Study, project impacts have been analyzed to determine their potential significance, all areas/categories of analysis were found to have a less than significant effect on the environment, and, where necessary, measures have been included to mitigate potentially significant impacts to a less than significant level (see **Section IV.e Biological Resources, Mitigation Measure BIO-1** and **BIO-2**). Therefore, the conversion of approximately 1.4-acres of forest land to vineyard is anticipated to result in less than significant impacts to forest and timberland. Furthermore, as indicated in the **Background/Project History** and **Environmental Setting Sections** of this initial study, the project parcel was significantly damaged by the Glass Wildfire (2020) and a portion of the burned vegetation has already been removed under a Notice of Emergency Timber Operation granted in 2021, Emergency Notice 1 – 21EM-00105 NAP (**Exhibit F**), which does not include a timber restocking requirement, and which has degraded the quality of the sites coniferous forest and timberland.

e.

The proposed project does not include the construction of roadways or other infrastructure that would 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 not have an 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

On June 2, 2010, the Bay Area Air Quality Management District (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act (CEQA). These guidelines were updated in May 2017 to address the California Supreme Court's 2015 opinion in Cal. Bkdg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Ca 4th 369. These thresholds are designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA, and were posted on the BAAQMD website and included in the BAAQMD updated CEQA Guidelines (BAAQMD CEQA Guidelines, May 2017). The thresholds are advisory and may be followed by local agencies at their own discretion.

The Air District published a new version of the Guidelines dated May 2017, which includes revisions made to address the Supreme Court's 2015 opinion in Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist., 62 Ca 4th 369.

On April 20, 2023, the Bay Area Air Quality Management District (BAAQMD) published updated CEQA guidance to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans (referred to as the 2022 CEQA Guidelines)[1]. The 2022 CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin. They contain nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and greenhouse gas impacts generated from land use construction and operational activities. Additionally, the guidelines include the new climate impact thresholds adopted by BAAQMD on April 20, 2022, using performance-based standards requiring new guidance on evaluating the climate impacts of land use projects and plans.

The BAAQMD 2022 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 revised guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017).

a-b. The project site is generally located in the Napa River – Bale Mill Reach and Dutch Henry Creek drainages along the eastern side of Napa Valley, within the Napa County climatological subregion of the San Francisco Bay Area Air Basin, which is under the jurisdiction of BAAQMD. The topographical and meteorological features of the Napa Valley subregion create the potential for air pollution. In the short term, potential air quality impacts are most likely to result from construction activities. Construction-related emissions, which are temporary in nature, mainly consist of particulate matter (PM) generated from fugitive dust during grading or other earthmoving activities and other criteria pollutants generated through the exhaust from construction equipment, vehicular haul and worker trips, and the burning of any project area vegetation[2]. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. Refer to **Section XVII (Transportation)** for the anticipated number of construction- and operation-related trips.

The potential impacts associated with implementation and operation of the proposed project as a result of air pollutant emissions were evaluated consistent with guidance provided by BAAQMD. 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. The criteria air pollutants emitted by development, traffic, and other activities anticipated under the proposed development include ozone (O_3), ozone precursors oxides of nitrogen and reactive organic gases (NO_x and ROG), carbon monoxide (CO), nitrogen dioxide (NO_2), and suspended PM of ten micrometers or less and two and a half micrometers or less (PM_{10} and $PM_{2.5}$). Other criteria pollutants, such as lead (Pb) and sulfur dioxide (SO_2), would not be substantially emitted by the proposed development or associated traffic, and air quality standards for them are being met throughout the Bay Area.

Air Quality CEQA Thresholds of Significance for the above-mentioned air pollutants (i.e. ROG, NO_x, PM_{10} and $PM_{2.5}$) are identified in Table 3-1 of the BAAQMD 2022 Guidelines. As such, those thresholds will be used to determine the significance of potential air quality impacts associated with air pollutant emissions. These air pollutant thresholds of significance are identified in **Table 3** below.

BAAQMD states that lead agencies need to determine appropriate air quality thresholds to use for each project they review based on substantial evidence that they include in the administrative record of the CEQA document. One resource BAAQMD provides as a reference for determining appropriate thresholds is the BAAQMD CEQA Guidelines described above, which outline substantial evidence supporting a variety of thresholds of significance.

In order to assess potential air quality and GHG emissions, a review of the emissions analysis associated with vineyard development/construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was

[1] https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines
[2] See **Section VIII (Greenhouse Gas Emissions)** for the greenhouse gas (GHG) emissions disclosure and impact assessment.

completed: Suscol Mountain Vineyards[3] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[4] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[5] for an approximately 400-acre vineyard development[6].

The analysis within 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 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 day 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 3 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Also shown in **Table 3** are the BAAQMD CEQA Guidelines draft thresholds of significance for emission of the following criteria pollutants: ROG, NO_x, PM_{10}, and $PM_{2.5}$.

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 quantities and types of vegetation to be removed, construction trips, construction equipment and duration of use/operation, and operational equipment operation and trips.

Table 3 – 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: 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: 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 (lbs/day)	54	54	54	82
Tons per year (Metric)[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 2022.

Because the proposed project's 7.0 gross acre vineyard (approximately 5.6 net-planted acres) is substantially 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 3** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 5-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. As indicated in the Project Description, the owner/permittee has included air quality protection measures into the project (Environmental Commitment D.iii) that are consistent with these BMPs except for the cessation of grading when average wind speeds exceed 25 mph, These BMPs, including cessation of grading when average wind speeds exceed 20 mph would be incorporated into the proposed project per the Condition of Approval below.

No blasting is proposed as part of the project. However, if blasting is determined to be necessary, it will be performed in isolated areas and will be scheduled to occur between the hours of 10:00 A.M. and 2:00 P.M. Given that the nearest residences to the project site are located approximately 510 feet to the north, 790 feet to the southwest and 820 feet to the northwest of the project site, and that blasting would be

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

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

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

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

short-term and limited to vineyard land preparation, potentially significant air quality impacts associated with blasting are not anticipated to be significant.

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

- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. The BAAQMD's phone number shall also be visible.
- Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- Cover all haul trucks transporting soil, sand, or other loose material offsite.
- Remove all visible mud or dirt tracked onto adjacent public roads by using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- Idling times shall be minimized either by shutting off equipment when not in use or reducing the maximum idling time to five minutes (as required by state regulations). Clear signage shall be provided for construction workers at all access points.
- Water and/or dust palliatives shall be applied in sufficient quantities during grading and other ground disturbing activities onsite to minimize the amount of dust produced. Outdoor construction activities shall not occur when average wind speeds exceed 20 mph.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator. Any portable engines greater than 50 horsepower or associated equipment operated within the BAAQMD's jurisdiction shall have either a California Air Resources Board (ARB) registration Portable Equipment Registration Program (PERP) or a BAAQMD permit. For general information regarding the certified visible emissions evaluator or the registration program, visit the ARB FAQ[7] or the PERP website[8].

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 3**, would contain other features that minimize fugitive dust (such as vineyard cover crop), and would introduce fewer new vehicle trips than the projects shown in **Table 3** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less-than-significant air quality impacts and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

c-d.

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

Land uses adjacent to the project site include rural residential, vineyards, wineries, wooded areas, and undeveloped land. The project site consists of approximately 28.7 acres of land and existing facilities include a driveway, dirt roads, three (3) groundwater wells, a residence, accessory structures, a water tank, and related water and power utility infrastructure that serve the existing uses, as well as approximately 1.0 acre of existing vineyard. The closest school is located approximately 2.7 miles to the southeast of the project site (Foothills Adventist Elementary) located outside of the St. Helena (Napa County GIS, Schools Layer). The nearest offsite residences to the project site are located approximately 510 feet to the north, 790 feet to the southwest and 820 feet to the northwest of the project site.

During installation of the ECPA, vineyard planting, and subsequent vineyard operations, airborne pollutants and odors would be created through the use of 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 2.7 miles from the closest school and approximately 510 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, 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:				

[7] http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf

[8] http://www.arb.ca.gov/portable/portable.htm

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 US 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 were utilized in this analysis and are incorporated herein by reference and available in the project file for review.

- Forest Ecosystem Management and Salix Natural Resource Management, November 2021 (Revised March 2023), Biological Resources Reconnaissance Survey Report, Miller THP/Conversion, 3906 Silverado Trail, Calistoga, Napa County, California (**Exhibit B**).
- Environmental Resource Management, May 2023 (Revised June 2023), Tree Planting Plan (**Exhibit B-1**)
- Forest Ecosystem Management, November 2021, Northern Spotted Owl Assessment, Miller THP/Conversion (**Exhibit B-2**)

Additionally, the following Napa County Geographic Information System (GIS) Sensitivity Maps/layers were utilized in this biological resources assessment: Sensitive biotic vegetation groups, U.S. Fish and Wildlife (USFWS) Critical Habitat, California Natural Diversity Database (CNDDB), Owl Habitat, Wetlands and Vernal Pools, Vegetation, Soil types, U.S. Geological Survey Quadrangle (DRG), and Aerial Photos.

A list of special-status plant and animal species that have the potential to occur within the vicinity of the project site was compiled based on data in the CNDDB (CDFW, 2021a), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2021a), and the USFWS List of Federal Endangered and Threatened Species (USFWS, 2021b) that may be affected by projects in the Saint Helena, Chiles Valley, Lake Berryessa, Rutherford, Yountville, Capell Valley, Sonoma, Napa and Mount George USGS 7.5 minute quadrangles.

The Biological Resources Reconnaissance Survey Report conducted assessments of biological resources on the project site in Spring and Summer 2021. The study area for the assessment was performed within the entire 28.77 acres parcel, seven (7) acres of which will be impacted by the proposed development. The surveys were completed to determine: the presence of sensitive biological communities; the potential for biological communities on site to support special-status plant or wildlife species; and the presence of sensitive natural resources protected by local, state, or federal laws and regulations. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales.

The Biological assessment of the study area determined that the parcel consists of the following vegetation communities (land cover types): developed (1.8 acres; includes residence, garage, barns, pool, landscaping, and paved areas including paved driveway), oak woodland (12.8 acres), douglas fir forest (9.8-acres), and wild oat & annual grassland (3.3-acres), and there is a small portion of an ephemeral stream located in the very northeastern corner of parcel. The project area (vineyard and clearing limits) have been intentionally sited to avoid all aquatic resources and reduce potential impact to forest/woodland habitat. In addition, the project received an Emergency Timber Harvest Permit which permitted the removal of dead and dying trees on the parcel consisting of oak woodland and coniferous forest for the entire parcel which was completed in 2022.

In the early fall of 2020, the Glass Wildfire occurred within Napa Valley and impacted the subject parcel and surrounding area. Portions of the parcel, including the project area had all vegetation (trees, shrubs, and ground cover) burned while other areas burned the ground vegetation

(shrubs and ground cover) and scarred the trees (some live overstory canopy remaining). As noted above, during the fall of 2021, a Notice of Emergency Timber Operations was filed and then completed in 2022 to remove the dead/dying trees (**Exhibit F** and **F.1**).

Based on the Biological Resources Reconnaissance Survey Report (**Exhibit B**), land cover types (or biological communities) occurring within the property can be found in **Table 4**.

Table 4 –Land Cover Types/Biological Community Removal and Retention

Land Cover Type or Biological Community	Acreage within Parcel (Pre-Project)	Acreage Removed / Legalized (vineyard)	Percent Removed (pre-replanting)	Percent Removed (post-replanting)	Percent Remaining (post replanting)	Replant Acreage	Post-Project Acreage
Developed Area	1.8	1.0	55%	-	45%	0.0	0.8
Douglas-fir forest	9.8	2.9	29.6%	5%	95%	2.4	9.3
Wild Oat & Annual Grassland	3.3	0.6	18%	-	82%	0.0	2.7
Coast live oak woodland	12.5	4.0	32%		76%	1.0	9.5
Valley oak woodland	0.2	0.0	0.0%	-	100%	0.0	0.2
White oak woodland	0.1	0.0	0.0%	-	100%	0.0	0.1

Sources: Biological Resources Reconnaissance Survey Report (**Exhibit B**)

a.

Special Status Plants

Of the seven (7) special-status plants documented from the greater vicinity, the project biologist found that four (4) of these plant species have the potential to occur within the project area. Of the nine (9) plant species with the potential to occur within the project area none were observed during the field surveys. The four (4) species with the potential to occur are holly-leaved ceanothus, Calistoga ceanothus, narrow-anthered brodiaea, and jepson's leptosiphon. As noted in the Biological Assessment no rare lichens or mosses were discovered within the project study area. The 2020 Glass Fire burned through the project area, killing off most existing moss and lichens within the area. Moss and lichens would be adversely affected by vineyard development; however, plant succession will continue outside the project area and eventually create more suitable habitat for mosses and lichens.

There is a potential that the detection of sensitive plant species can be either positively or negatively affected by fire. Some species, such as the Cobb Mountain Lupine (*Lupinus sericatus*), might not have been present prior to the fire but their rather long-lived seedbank may have germinated following the high-level of disturbance post-fire (personal observation). This indicates that the plant species was present on-site before plant succession eventually shaded out the original population. Species such as Napa false-indigo (*Amorpha californica var. napensis*) readily resprout after a fire if the root system is unharmed, and in many cases, populations become more abundant with an increase in sunlight due to less competition. Other species, like annuals, may be either harder or easier to detect, depending upon the pre-fire presence of invasive plant species. In some areas where French broom (*Genista monspessulana*) was present at the edge of a forest or along a road, these invasive plant populations boom post fire with their extensive long-lived and large seedbanks, extending beyond their original population centers and amassing an almost solid stand of broom. However, in areas where invasive plants are not present, annuals may resurge at high levels due to bare mineral soil layer and reduced competition from woody vegetation. Within the footprint of the 2017 Tubbs Fire, hollyleaf Ceanothus (*Ceanothus purpureus*) is dominating the landscape where formerly its likely populations were small due to a dense forest of bay laurel *Umbellularia californica* and pacific madrone (*Arbutus menziesii*). However, as noted in the Biological Assessment none of these species were identified as existing on the parcel during the surveys conducted in 2021 and 2022., and the parcel has continued to be managed in a park-like condition as noted in the Biological Assessment so conditions have remained similar to what they were assessed as during the initial Biological surveys. The project has been designed to avoid the 0.2 and 0.1 acres of valley oak and white oak woodland.

As noted in the report, the parcel has been kept in a park-like condition for many years (even pre-fire) and a subsequent site inspection occurred in July 2022. The 2022 survey noted that the entire property had little to no ground vegetation (shrubs and forbs) both pre and post fire and as a result of the timber harvesting. The site has always and still is "park-like", with a little more multi-tied vegetation on the steeper slopes (outside the project area).

The proposed project would not result in the removal of special-status plant species or their habitat, and would be consistent with the following Napa County General Plan Conservation Element Goals and Policies and Zoning Ordinance: General Plan Goal CON-2[9] because it would assist in maintaining the existing level of biodiversity in the County, as well as contribute to minimization of potential cumulative impacts associated with the loss of special-status plant species and associated habitat due to agricultural conversion projects; Goal CON-3[10] as it would protect the continued presence of special-status plant species or habitat; Policy CON-13[11] in that impacts to special-status habitat would be avoided; Policy CON-17[12] because the removal and disturbance of a sensitive natural plant community that contains special-status plant species would be prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it would preserve natural habitat or existing vegetation, and would not adversely affects sensitive, rare, threatened or endangered plants.

Protecting the continued presence of special-status species, including special-status plant and wildlife species, and their habitats, in addition to conservation and protection of all habitats for native species in Napa County is encouraged by Napa County General Plan Goal CON-3 and Goal CON-4[13]. Additionally, pursuant to Napa County General Plan Policy CON-13,[14] the County shall require that all discretionary agricultural projects consider and address impacts to wildlife habitat and avoid impacts to habitat supporting special-status species to the extent feasible, and where impacts to special-status species and their habitat cannot be avoided, projects shall include effective mitigation measures and management plans to provide protection for habitat supporting special-status species through buffering or other means, and enhance existing habitat values particularly for special-status species through restoration and replanting as part of the project or its mitigation.

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[15], specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. The project site contains approximately 12.8 acres of oak woodland (12.5 acres coast live oak, 0.2 acres valley oak and 0.1 acres white oak). The valley oak and white oak are completely avoided, but the project does propose to remove 4.0 acres of coast live oak woodland. In order to maintain 2 acres preserved for 1 acre impacted in compliance with Policy CON-24c, 2:1 preservation ratio, approximately 4.16 acres can be converted to vineyard to comply with this policy. However, the applicant also proposes to replant 1.0 acres of native oak species, specific species depending on availability, which will create new native oak woodland to help offset the removal of 4.0 acres of exciting fire impacted canopy. The project's proposed conversion of 4.0 acres of oak woodland, replanting of 1.0 acres of oak woodland, and preservation of remaining oak woodland on the project site would minimize potential impacts to oak woodlands and comply with policy directives. To meet the 2:1 preservation for Policy CON-24 requirement, the project will need to permanently preserve 16.2 acres of oak woodland habitat (see **Permanent Preservation Condition of Approval under** e of this section).

Special-Status Wildlife

Of the 76 special-status wildlife species that have been documented in the greater vicinity, only nine (9) of these species have a low to high potential to occur in the project area or parcel. There is one special-status bird (Northern Spotted Owl) with marginal foraging habitat present; and 8 non-status species with baseline legal protections (Olive-Sided Flycatcher, Purple Martin, Pallid Bat, Townsend's Big-Eared Bat, Western Red Bat, Hoary Bat, Fringed Myotis, and Long-Legged Myotis) that might be found residing on or immediately adjacent to the Study Area.

> Olive-Sided Flycatcher (*Contopus cooperi*) – Moderate Potential to Occur
> Olive-Sided Flycatchers are summer residents in a wide variety of forest and woodland habitats below 9,000' throughout California. Preferred nesting habitats include mixed conifer, montane hardwood-conifer, Douglasfir, redwood, red fir, and

[9] Goal CON-2: Maintain and enhance the existing level of biodiversity.

[10] 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.

[11] 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.

[12] Policy CON 17: Preserve and protect native grasslands, serpentine grasslands, mixed serpentine chaparral, and other sensitive biotic communities and habitats of limited distribution. The County, in its discretion, shall require mitigation that results in the following standards: Prevent removal or disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species.

[13] Goal Con-3: Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations. Goal Con-4: Conserve, protect, and improve plant, wildlife, and fishery habitats for all native species in Napa County.

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

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

lodgepole pine; usually along forest edges. Requires large, tall trees, usually conifers, for nesting and roosting sites; and often uses dead tips of uppermost branches of the tallest trees in the vicinity for singing posts and hunting perches. Nests are an open cup of grasses, mosses, lichens, rootlets, or pine needles 5' to 70' above the ground. These birds forage for flying insects in forest openings, burns, edges, and other mixed open area in forest habitats. Peak of egg-laying is in June. Olive-Sided Flycatchers are known to have nested in Napa County. Suitable Olive-Sided Flycatcher habitat is found within the Study Area and area immediately adjacent to the Study Area. The habitat may have been downgraded due to the Glass wildfire due to large swaths of overstory canopy cover burned and Emergency Notice of Timber Operations removing dead/dying trees. No Olive-Sided Flycatchers were observed within the study area.

Purple Martin *(Progne subis)* – Moderate Potential to Occur
Uncommon to rare local resident in a variety of wooded, low-elevation habitats throughout the state. Purple Martins frequent old-growth, multi-layer, open forests and woodlands with snags during the breeding season. They forage over riparian areas, forests, and woodlands. They also occur in coniferous habitats, including closed-cone pine-cypress, ponderosa pine, Douglas-fir, and redwood forests. Nests are in an old woodpecker cavity (often a tall, large cavity tree), but will use human-made structures such as nesting box, buildings, on utility poles, under bridges, or in a culvert. Purple martins forage on insects, especially large ones like dragonflies. Purple Martins breed April through August, with peak activity in June. Purple Martins are known to breed in Sonoma County. Populations have declined because of loss of large snags, fire suppression, and competition for nest cavities from European starlings and house sparrows. Suitable Purple Martin habitat is found within the Study Area. The CNDDB lists numerous occurrences of purple martins within 5-miles of the Study Area. The impact of the Glass Wildfire may have improved the potential for nest sites (creation of snags and cavity trees); however, the Study Area was logged under an Emergency Notice in the Fall of 2021; thereby, removing dead and dying trees. No purple martins were observed within the study area.

Pallid Bat (*Antrozous pallidus)* – Moderate Potential to Occur
A relatively common species of low elevations in California. Occurs in wide variety of habitats including grasslands, shrublands, woodlands, and forests; but most common in open, dry habitats with rocky areas for roosting. Day roosts are in caves, crevices, mines and hollow trees or buildings. Roosts must protect bats from high temperatures. Night roosts may be in more open sites. Tree roosting has been documented within snags, basal hollows of conifers, and within bole cavities in oak trees. Prey items are primarily insects and arachnids, including beetles, orthopterans, homopterans, moths, spiders, scorpions, solpugids, and Jerusalem crickets. Mates from late October to February with maternity colonies forming in early April. Young are born April – July, with most in May and June. Young have been observed flying in July and August. The Study Area does have habitat present for foraging and roosting (cavity trees and rock outcrop). The CNDDB lists occurrences of Pallid Bats both within the BREA and 5-mileassessment area. Due to the Glass Wildfire, some burned hollow trees may have been created; however, the Study Area was logged under an Emergency Notice in the Fall of 2021; thereby, removing dead and dying trees. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Townsend's Big-Eared Bat (*Corynorhinus townsendii)* – Moderate Potential to Occur
Townsend's Big-Eared Bats are found throughout California, with their distribution not well known. They are a relatively sedentary species making short movements to hibernations sites. This species is found in all but subalpine and alpine habitats, being most abundant in mesic habitats. Small moths are the principal food of this species, with beetles and a variety of soft-bodied insects also taken. Caves, mines, tunnels, buildings, or other human-made structures are used for roosting with separate day, night, hibernation and maternity roosts used. Small clusters or groups (less than 100 individuals) of females and young form the maternity colony. Glean insects from brush or trees and feeds along habitat edges. Mating occurs from November – February. Births occur in May and June with a peak in late May. Young are weaned in 6 weeks and are able to fly in 2 ½ to 3 weeks after birth. The Study Area does have habitat present for foraging and roosting sites (hollow trees, snags, large rock outcrop). The CNDDB does list occurrences of Townsend's Big-Eared Bats both within the BREA and 5-mile assessment area. Due to the Glass Wildfire, some burned hollow trees may have been created increasing roosting sites; however, the Study Area was logged under an Emergency Notice in the Fall of 2021; thereby, removing dead and dying trees. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Western Red Bat (*Lasiurus blossevillii*) – Moderate Potential to Occur
Western Red Bats are locally common in some areas in California. There is migration between summer and winter ranges, and migrants may be found outside the normal range. Foraging occurs over a wide variety of habitats including grassland, shrub lands, open woodlands, forests, and croplands. They roost primarily in trees, less often in shrubs. Roosts are often along the edges of habitats and are often adjacent to stream, fields, or urban areas. Family groups may roost together and nursery colonies are found with many females and their young. May be found foraging with many other bat species, but usually does not roost with other species. Western red bats mate in August and September. Births are from late May through early July, with young capable of flight between 3 to 6 weeks of age. The Study Area does have habitat present for foraging and roosting (tree cavities and snags). Due to the Glass Wildfire, some burned hollow trees may have been created increasing roosting sites;

however, the Study Area was logged under an Emergency Notice in the Fall of 2021; thereby, removing dead and dying trees. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Hoary Bat (*Lasiurus cinereus)* – Moderate Potential to Occur
The Hoary Bat is the most widespread North American bat and may be found at any location in California. They do migrate between summer and winter ranges, probably over long distances. Hoary Bats prefer open habitats or habitat mosaics, with access to trees for cover and open areas or edges for feeding. They feed primarily on moths, although various flying insects are taken. Hoary Bats generally roost in dense foliage of medium to large trees, with preferred sites to be hidden from above with few branches below, and have ground cover of low reflectivity. Females bear young while roosting in trees and may leave the young in the roosting sites when foraging. They do require water. Mates in the autumn, in migration, or on the wintering grounds. The young are born from mid-May through early July. The offspring are capable of flight after 33 days. The Study Area does have habitat present for foraging and roosting sites. Due to the Glass Wildfire, some burned hollow trees may have been created increasing roosting sites; however, the Study Area was logged under an Emergency Notice in the Fall of 2021; thereby, removing dead and dying trees. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Northern Spotted Owl (*Strix occidentalis caurina)* – Low Nesting Potential but Foraging Possible
Resident within suitable habitat. Northern Spotted Owl's habitat includes a forest with dense, multi-layered canopy of several tree species; tree species of varying sizes and ages; abundant snags/cavity trees, broken tops, or platform-like structures; and open spaces among the lower branches to allow for flight. USFWS further defines NSO habitat as having at least 40% overstory canopy cover, with nesting/roosting habitat within stands exceeding 60% overstory canopy (with over 80% preferred). In this area, there appears to be a preference for narrow, steep-sided canyons with north-facing slopes. Feed primarily upon woodrats, but also known to eat squirrels, mice, voles, and rabbits. Northern Spotted Owls breed February through August, with peak activity in April and May. Northern Spotted Owls are known to breed in Napa County. Sensitive to habitat destruction and fragmentation. Invading barred owls displacing NSOs from their territories. Nesting habitat is not present within the Study Area due to type and lack of canopy cover. Northern Spotted Owls might forage within the Study Area. No Northern Spotted Owls were detected within the Study Area, with nocturnal protocol surveys being completed.

A Northern Spotted Owl Assessment was conducted in 2021 and 2022 (**Exhibit B.2**). According to the Assessments, the Project Area was surveyed in 2020 (prior to the Glass wildfire), 2021 and 2022. Two survey stations were used, one on the northern and one on the southern end of the property. No northern spotted owls or barred owls were detected. However, it was noted that surveys are valid for the breeding season in which they were completed, as such an additional survey will be required prior to project implementation.

Fringed Myotis (*Myotis thysanodes*) – Marginal Habitat, Low Potential to Occur
The bat, Fringed Myotis, is widespread in California. Their abundance appears to be irregular, being common in some areas and absent in others. Optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer, generally at 4000 – 7000 feet. Fringed myotis feed mostly on beetles but also on moths, arachnids, and orthopterans. They will roost in caves, mines, buildings, and crevices. Separate day and night roosts may be used; with adults and subadults forming separate groups in the roosts. Maternity colonies of up to 200 individuals are located in caves, mines, buildings or crevices. Require a water source. Mating occurs in the fall with the young being born from May through July, with peaks in late June. Young females are mature in their first year with males being mature in their second year. Fringed myotis are known to live for 18 years. Possible predators include owls and snakes. Disturbance at roosting sites. The Study Area does have marginal habitat present; however, may be below the optimal habitat elevational requirements. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Long-Legged Myotis (*Myotis volans*) – Marginal Habitat, Low Potential to Occur
The bat, long-legged myotis, is common in California. The Long-Legged Myotis is most common in woodland and forest habitats above 4,000'. They will also forage in chaparral, coastal scrub, Great Basin shrub habitats, and in early successional stages of woodlands and forests. They feed on flying insects, primarily moths often over water, close to trees and cliffs, and in openings in woodlands and forests. This species is not particularly maneuverable. They will roost in rock crevices, buildings, under tree bark, in snags, mines, and caves. Separate day and night roosts may be used, with trees being the most important day roosts. This species forms nursery colonies numbering hundreds of individuals, usually under the bark or in hollow trees, but occasionally in crevices or buildings. This species drinks regularly. Mating occurs in the fall and the young are born in June and July. Large nursery colonies often occur. Year-old bats are capable of reproduction. The maximum recorded longevity is 21 years. The Study Area does have marginal habitat present for foraging and roosting within tree cavities; however, may be located below the optimal elevational requirements. No bats were observed within the Study Area during nocturnal NSO surveys; however, a targeted bat survey was not completed under this assessment.

Removal of trees canopy and vegetation could result in potentially significant direct, indirect and cumulative impacts on special-status and migratory birds, through removal of shelter and foraging habitat, and indirect construction-related disturbance (e.g., noise) to nesting birds including raptors and Northern Spotted Owl. Implementation of **Mitigation Measure BIO-1** would reduce potential impacts on special-status and migratory birds, raptors and Northern Spotted Owls by requiring that a qualified biologist conduct a preconstruction survey, followed by preparation of avoidance measures and exclusion buffers prior to project initiation. With implementation of **Mitigation Measure BIO-1**, the proposed project would result in less than significant impacts on special-status bird species.

> **Mitigation Measure BIO-1:** The Permittee shall include in #P22-00153-ECPA the following measures to minimize impacts associated with the loss and disturbance of nesting birds and raptors, including northern spotted owl, consistent with and pursuant Fish and Game Code Sections 3503 and 3503.5 *and the California Endangered Species Act found in Fish and Game Code Section 2050 et seq.:*
>
> a. *A qualified biologist shall perform pre-construction spot check surveys for northern spotted owl in accordance with the U.S. Fish and Wildlife Service's (USFWS) Protocol for SurvetJing Proposed Management Activities That May Impact Northern Spotted Owls (Revised JanuanJ 9, 2021). If northern spotted owls are detected during pre-construction spot check survetJS, CDFW and the USFWS shall be consulted with regarding avoidance and minimization measures prior to begi.nning project activities. If take of northern spotted owl may occur, the Permittee shall obtain a CESA Incidental Take Permit prior to starting project construction. If northern spotted owl are observed during construction activities, all construction shall cease immediately and CDFW and the USFWS shall be consulted. In this event, construction activities shall not resume without CDFW's written permission.*
> b. 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 potential to occur at the project site) shall conduct preconstruction surveys for nesting birds *and* raptors within all suitable habitat *in* the project *area,* and within a minimum of 500 feet of all project areas. The preconstruction survey *shall* be conducted no earlier than 7 days prior to vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 7 days from the survey date, surveys *shall* be repeated. A copy of the survey results *shall* be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
> c. After commencement of work, if there is a period of no work activity of 5 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
> d. In the event that nesting birds are found, a *qualified biologi.st* shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
> e. 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. *Additionally, a qualified biologist shall monitor all active nests each day during construction for the first week, and weekly thereafter, to ensure that the exclusion buffers are adequate and that construction activities are not causing nest disturbance. If the qualified biologist observes birds displaying potential nest-disturbance behavior, the qualified biologi.st shall cease all work in the vicinity of the nest and CDFW shall be consulted about appropriate avoidance and minimization measures for nesting birds prior to construction activities resuming. In this event, construction activities shall not resume without CDFW's written approval.*
> f. Alternative methods aimed at flushing out nesting birds prior to pre-construction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) *shall be* prohibited.

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 trees during project construction. 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 include in Erosion Control Plan #P22-00153-ECP 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.

b-c.

No riparian habitat or wetlands were identified within the project site (**Exhibit B**). There is one unnamed blue-line stream located on the northeastern of the subject parcel, the ephemeral runs east to west and the proposed project areas is located more than 100' from the existing drainage (see **Exhibit A**). The drainage is considered a sensitive aquatic resources and has been avoided with minimum 35-foot setbacks in accordance with NCC Section 18.108.025. The proposed project has also been designed to maintain existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soils loss or runoff as compared to existing conditions). Therefore, the proposed project would not result in a significant impact to riparian habitat, or blue-line or ephemeral drainages, or wetlands. There is no distinctly riparian vegetation associated with the moderate-gradient and narrow channeled intermittent stream.

The proposed project has been designed to include minimum 35-foot stream setbacks from the ephemeral/intermittent streams and drainage swales/channels on the subject property, in conformance with County Code Section 18.108.025 (General provisions – Intermittent/perennial streams). Therefore, the project has been designed to provide setbacks from aquatic features (i.e. ephemeral streams and ponds) creek setbacks consistent with code requirements. Furthermore, project approval, if granted, would be subject to the following standard conditions to prevent the potential encroachment into stream and wetland setbacks required pursuant to Section 18.108.025 and Section 18.108.026, further protecting these aquatic resources during project implementation and operation resulting in a less than significant impact.

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

1. The location of ephemeral stream and pond setbacks shall be clearly demarcated in the field with temporary construction fencing, which shall be placed at the outermost edge of required setbacks shown on the project plans. Prior to any earthmoving activities, temporary fencing shall be installed: the precise locations of said fences shall be inspected and approved by the Planning Division prior to any earthmoving and/or development activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated areas for the duration of erosion.

Oak woodlands are present in the project site, which is considered a sensitive biological community in Napa County. The project has been designed to avoid the 0.2 acres of valley oak woodland, and 0.1 acres of white oak woodland. There are approximately 12.5 acres of coast oak woodlands present on the subject parcel, with approximately 4.0 acres occurring in the proposed development area. The project proposes a tree replanting plan (Exhibit B.1) which proposes to replant 1.0 acre of native oak woodland, further reducing impacts to oak woodland.

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 the **Tree Replanting Plan Condition of Approva**l and **Permanent Preservation Condition of Approval** (discussed in e of this section), requiring the preservation of 16.2 acres vegetation canopy cover which includes the replanting of 3.4 acres of coniferous forest and oak woodland, the project would achieve consistency with the required mitigation and preservation of oak woodland and vegetation canopy cover required under 18.108.020.D and E, as well as General Plan Policy CON-24 and Policy CON-17.

d. The project areas are not within a designated wildlife corridor, or within a mapped "Essential Connectivity Area" (CDFW and Caltrans, 2010). Wildlife nursery sites were not identified in the project site; therefore, no impacts would occur in this regard. Natural areas interspersed with developed areas are important for animal movement, increasing genetic variation in plant and animal populations, reduction of population fluctuations, and retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also provide ecosystem services such as preservation of watershed connectivity. Currently the parcel is fenced, so movement of larger terrestrial wildlife species is prohibited. Birds, small mammals, insects, and plant seed can move through the deer fence. It is anticipated that no new fences will be installed as a result of this vineyard project. Ephemeral Streams, even when dry, and associated vegetation within the parcel presumably provide very localized movement and shelter habitat for common wildlife this area and the proposed preservation and revegetation area will create, and improved wildlife corridor compared to the existing fire impacted vegetation.

   Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because they are temporary and because of the limited scale of the project. The proposed project would be consistent with General Plan Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife nursery sites were not identified in the project site, and there would thus be no impacts to wildlife nursery sites. As there is no change proposed to the existing fencing, impacts to wildlife movement, habitat use and availability, and vegetation removal would be less than significant.

e.

   The parcel consists of the following vegetation communities (land cover types): developed (1.8-acre; includes residence, accessory structures, 1.0 acres of vineyard, landscaping, and paved areas including paved driveway), oak woodland (12.8 acres), douglas fir forest (9.8-acres), wild oat & annual grassland (3.3-acres), as well as an ephemeral stream (**Exhibit B**). The project would remove approximately 4.0 acres of oak woodland (but also replant 1.0 acres) 1.4-acres of Douglas fir forest (but also replant 2.4 acres), approximately 0.6-acres of grassland, and legalize 1.0-acres of existing landscaping vineyard to agricultural vineyard (developed) (**Table 4**). The 2020 fires burned a large portion of the project parcel, and an Emergency Timber Harvest Permit was granted for the parcel and completed in fall 2021.

   The Conservation Regulations (Napa County Code Chapter 18.108) intent and purpose is to preserve the natural resources of the County and provide greater environmental protection for natural environmental resources, particularly agricultural lands, forests, wildlife habitat, and water. Additionally, the Conservation Regulations strive to accomplish the following: minimize cut, fill, earthmoving, grading operations and other such man-made effects in the natural terrain; preserve natural habitat by controlling development near streams, rivers and wetlands; minimize impacts on existing landforms by avoiding steep slopes, and preserving existing vegetation; and, reduce the loss of vegetation by protecting vegetation canopy cover and requiring minimum mitigation requirements.

   Oak woodlands are not considered sensitive by CDFW or included as sensitive in the NCBDR; however, the 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, soil protection, and species diversity. Policy CON-24c specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. Code Section 18.108.020(C) requires that 70 percent of canopy cover be retained based on the on-site canopy present on June 16, 2016. Code Section 18.108.020(D) requires that the removal of tree canopy on an acreage basis be mitigated at a 3:1 ratio (which is equivalent to 75 percent retention) where the areas to be preserved must generally occur on slopes less than 50 percent and outside of stream and wetland setbacks. Since the parcel burned in the 2020 fire, it is subject to Code Section 8.80.130(A) which requires that the vegetation canopy cover be based on that existing on the parcel on June 19, 2018. Living canopy cover mapped based on living trees and a 2018 aerial photograph results in 12.8 acres of oak canopy cover throughout the entire subject parcel, of which 4.0 acre is situated within the project area (31 percent of total in the project area). The vegetation canopy cover analysis provided in the plan set (**Exhibit A)** utilized the 2018 aerial as a baseline. **Table 5**, Vegetation Canopy Cover Retention, outlines the retention ratios resulting from the proposed project. The project, as proposed, would be consistent with the vegetation canopy cover requirements found in NCC Sections 8.80.130.A and 18.108.020.D. Therefore, the proposed vineyard ECP is in compliance with the County Code vegetation canopy cover retention requirements.

Table 5 – Vegetation Canopy Cover Retention on the Project Parcels

Assessor's Parcel Number	021-030-006
Vegetation Canopy Cover (pre-project)[1]	22.6 acres
Vegetation Canopy Cover Replant area	3.4 acres
Vegetation Canopy Cover Removed	5.4 acres
Net removal	2.0 acres
% Vegetation Canopy Cover Retained	91.5%
3:1 Preservation Mitigation Required	16.2 acres
Brush/Grass Canopy (pre-project)	3.3 acres
Brush/Grass Canopy Removed	0.6 acres
% Brush/Grass Canopy Retained	82%

[1] Based on 2018 aerial (**Exhibit A)**

The project proposes to replant 3.4 acres of new vegetation canopy consisting of 2.4 acres of douglas-fir and 1.0 acre of native oak species (variety depending on availability at time of implementation). To ensure this aspect of the proposed ECP is implemented a Tree Replanting Plan Condition of Approval has been included. Implementation of the **Tree Replanting Plan - Condition of Approval** would require that the 2.4 acres of douglas-fir and 1.0 acre of oak woodland be installed prior to project final to ensure consistency with 18.108.020.D. As proposed the replanting plan will not result in additional water usage on the property. The 500 gallons of water required to establish the replant area will be purchased on the open market (such as Bingham's Potable Water delivery) and water delivery is expected to occur twice per year to fill an existing 250-gallon portable tank that will be used to water the replant area during establishment. With implementation of this Condition of approval, the project will be consistent.

> **Tree Replanting Plan – Condition of Approval:** The Owner/Permittee shall implement the Tree Replanting Plan as detailed in **Exhibit B.1** Tree Planting Plan (TPP) prepared by Environmental Resource Management (2023) and shall adhere to all goals, plan requirements, maintenance specifications, monitoring and success criteria detailed therein and shall consist of 2.4 acres of douglas-fir and 1.0 acres of native oaks, for a total replant area of 3.4 acres.

The project as proposed does not include a mechanism for permanent preservation as required by subsection 18.108.020.E and under General Plan Policy CON-24; therefore, the project, as proposed is inconsistent with NCC Section 18.108.020(E) and GP Policy CON-24. Implementation of a **Permanent Preservation - Condition of Approval** would require that the vegetation canopy cover area be recorded in a deed restriction or conservation easement to permanently restrict development from the areas indicated in the Vegetation Canopy Cover Preservation Area consistent with 18.108.020.D+E. With implementation of this Condition of approval, the project will be consistent.

> **Permanent Preservation – Condition of Approval:** The Owner/Permittee shall record a permanent preservation area to achieve consistency with the Napa County Conservation Regulations 18.108.020.E:
>
> a. A Vegetation Canopy Cover Preservation Area (consistent 18.108.020(e) and Policy CON-24) consisting of 16.2 acres of vegetation canopy cover, located outside of the boundaries of the existing and proposed developed area shall be designated as such in a deed restriction or conservation 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 open space conservation 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 oak woodland being impacted as a result of the proposed project, as follows: areas to be preserved shall take into account the type of vegetation being removed, and species diversity and species that are limited within the project property and Napa County; the acreage included in the preservation area should be selected in a manner that minimizes fragmentation of forest within the project property, protects special-status species; and the preservation area should not include portions of the property already subject to development restrictions (i.e., within creek setbacks or on slopes over 50%). The area to be preserved shall be determined by a qualified biologist with knowledge of the habitat and species and shall obtain final approval from Napa County.
>
> b. 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 #P22-00153-ECP 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 percent 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.

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 Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
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: Flaherty Cultural Resource Services (FCRS), Cultural Resource Reconnaissance, August 2015, Cultural Resource Reconnaissance of 28.7 acres near Calistoga, Napa County California, APN 021-030-006, 3906 Silverado Trail.

FCRS conducted an archeological evaluation of the project site which included a check of information on file with the California Historical Resources Information System Northwest Information Center 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 the all accessible parts of the approximately 7.0 acre project site to locate any visible signs of potentially significant historic or prehistoric cultural deposits.

a-c.

The cultural resource reconnaissance report noted that four cultural resources were discovered, three isolated obsidian flakes and a historic ranch consisting of a single-family house, barn and outbuilding older than 45 years. These isolated finds did not constitute an archeological site the report noted that they need not be given any further consideration. Since the proposed vineyard development will not affect any of the existing structures no recommendations are required.

Furthermore, project approval, if granted, would be subject to the standard conditions identified below to protect cultural resources that may be discovered accidently. Therefore, with incorporation of the condition of approval, below, the proposed project would result in less than significant impacts to historic or archaeological resources.

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 (RPA) and a Yocha Dehe Wintun Nation Tribal Cultural Monitor have 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. 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 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 39 percent of total statewide energy consumption in 2014 (U.S. Energy Information Administration 2016). 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 Napa County 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 mandates 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 USEPA 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]. The proposed project would comply with these State requirements; see the Air Quality conditions of approval. Napa County has not implemented an energy action plan. Therefore,

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

the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets, and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
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 less than significant impact would occur. Additional information supporting this conclusion is identified below.

i) There is one potentially active fault that is located 3.98 miles north of the project parcel, which runs in a east-west direction (Napa County GIS faults and earthquakes layers). The Napa GIS database does not indicate the potential presence of landslides in the vicinity of the property. Therefore, no impact would occur.

ii) Although the project site is located in an area that may be subject to strong or very strong seismic ground shaking potential during an earthquake (California Geological Society, 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.

Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 2014, USDA 1978, and USDA 1972) as Bale clay loam (0-2% slopes); Boomer loam volcanic bedrock (2-35% slope, MLRA 15); Boomer gravelly loam, volcanic bedrock (11-43% slopes, MLRA 15); and Boomer gravelly loam, volcanic bedrock (14-60% slopes, MLRA 15) (**Exhibit B**).

Installation and implementation of the ECP would involve vegetation removal and earthmoving activities within the proposed vineyard areas. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earthmoving activities cannot be performed between October 15 and April 1. 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 a no-till cover crop with vegetative cover densities of at least 80%. 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 Bartelt Engineering (**Exhibit D**), the proposed project is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 6**). Under existing conditions, the annual soil loss is anticipated to average 244.19 tons per acre per year across the development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to average 23.1 tons per acre per year, or a reduction of approximately 96% as compared to existing conditions.

Table 6 – USLE Soil Loss Analysis

Vineyard Block Transect	Proposed Development Acres	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
A HH	1.2	2.04	1.51	-0.53	-25.98%
A JJ	1.2	1.66	1.24	-0.42	-25.3%
B1 AA	0.3	34.43	2.91	-32.02	-91.55%
B2 BB	3.8	27.26	3.13	-24.13	-88.5%
B2 CC	3.8	27.35	3.14	-24.21	-88.5%
B2 DD	3.8	49.98	3.38	-46.6	-93.24%
B2 EE	3.8	57.59	2.69	-54.9	-95.33
B3 FF	0.5	19.43	2.23	-17.2	-88.5%
B3 GG	0.5	25.02	2.87	-22.15	-88.5%
Total Average	**5.8**	**244.19**	**23.1**	**-221.66**	**96.08%**

Source: Bartelt Engineering, May 2022, **Exhibit D**

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 establishment, consist of permanent no-till cover, straw mulching, straw wattles, and other practices as needed.*

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, 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 no 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, the project site is not located in an area prone to landslides, ground failure or liquefaction. The proposed project identifies the soil types in the project site and addresses any potential soil instability. Therefore, impacts from offsite landslides, lateral spreading, subsidence, liquefaction or collapse would be less than significant.

d.

Soils on the project site have been classified according to the Soil Survey of Napa County (USDA 2014, USDA 1978, and USDA 1972) as Bale clay loam (0-2% slopes); Boomer loam volcanic bedrock (2-35% slope, MLRA 15); Boomer gravelly loam, volcanic bedrock (11-43% slopes, MLRA 15); and Boomer gravelly loam, volcanic bedrock (14-60% slopes, MLRA 15). In addition, 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 vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.

f.

There are no unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve 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

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

On April 20, 2022, the BAAQMD adopted updated thresholds of significance for climate impacts (CEQA Thresholds for Evaluating the Significance of Climate Impacts, BAAQMD April 2022).[16] 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 climate goals of being carbon neutral 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 construction-related climate impact threshold at this time. Greenhouse gas (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.

On April 20, 2023, the Bay Area Air Quality Management District (BAAQMD) published updated CEQA guidance to assist lead agencies in evaluating air quality and climate impacts from proposed land use projects and plans (referred to as the 2022 CEQA Guidelines). The 2022 CEQA Guidelines are advisory for local and regional governments in the San Francisco Bay Area Air Basin. They contain nonbinding recommendations for how a lead agency can evaluate, measure, and mitigate air quality and greenhouse gas impacts generated from land use construction and operational activities. Additionally, the guidelines include the new climate impact thresholds adopted by BAAQMD on April 20, 2022, using performance-based standards requiring new guidance on evaluating the climate impacts of land use projects and plans.

The BAAQMD 2022 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 revised guidelines supersede BAAQMD's previous CEQA guidance titled *BAAQMD CEQA Air Quality Guidelines* (2017).

Napa County has been working to develop a Climate Action Plan (CAP) for several years. The 2012 Draft CAP (March 2012) recommended using the emissions checklist provided therein, 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, it requested that the CAP be revised to better address transportation-related GHG emissions, to acknowledge and credit past accomplishments and voluntary efforts, and to allow more time for establishment of a cost-effective local offset program. The BOS also requested that BMPs 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 recommenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as 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. As the part of the first phase of development and preparation of the CAP, the County released Final Technical Memorandum #1: 2014 Greenhouse Gas Emissions Inventory and Forecast, April 13, 2016. This initial phase included: i) updating and incorporating the 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. 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/592/Climate-Action-Plan.

For the purposes of this assessment the carbon stock and sequestration factors identified within the 2012 Draft CAP are utilized to calculate and disclose potential GHG emissions associated with agricultural "construction" and development and with "ongoing" agricultural maintenance and operation, as further described below. The 2012 Draft CAP carbon stock and sequestration factors are utilized in this assessment because they provide the most generous estimate of potential emissions. As such the County considers that the anticipated potential emissions resulting from the proposed project that are disclosed in this Initial Study reasonably reflect proposed conditions and therefore are considered appropriate and adequate for project impact assessment.

Regarding operational emissions, 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 CEQA *Guidelines* and the OPR Technical Advisory 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.

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

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, 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.

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, and its concentration in the atmosphere is most affected by human activity. It also serves as the reference gas to which to compare other GHGs. Agricultural sources of carbon emissions include forest clearing, land-use changes, biomass burning, and farm equipment and management activity emissions. Equivalent Carbon Dioxide (CO_{2e}) is the most commonly reported type of GHG emission and a way to get one number that approximates total emissions from all the different gasses that contribute to GHG, as described in BAAQMD's CEQA Guidelines. 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).[17]

One-time "Construction Emissions" associated with vineyard development projects include: i) the carbon stocks that are lost or released when site vegetation is removed, including any woody debris and downed wood; ii) underground carbon stocks, or soil carbon, released when soil is ripped in preparation for vineyard development and planting (referred to as Project Site Emissions below); and iii) emissions associated with the energy used to develop and prepare the project site and plant vineyard, including construction equipment and worker vehicle trips (referred to as Equipment Emissions below). For the purpose of this analysis, it is assumed that all removed vegetation would be burned, even though some may be chipped/mulched. Refer to **Section XVII (Transportation)** for anticipated number of construction trips and equipment associated with project construction and operations.

In addition to the one-time Construction Emissions, "Operational Emissions" of the vineyard are also 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 farm equipment and vehicles (such as tractors, haul trucks, backhoes, pick-up trucks, and ATVs) and worker vehicle trips (referred to as Operational Equipment Emissions below). See **Section XVII (Transportation)** for anticipated number of operational trips. Operational Emissions from the proposed vineyard would be modest when compared to one-time construction emissions (as discussed below), and a

[17] "Carbon stock" refers to the total amount of carbon stored in the existing plant material including trunks, stems, branches, leaves, fruits, roots, dead plant material, downed trees, understory, and soil organic material. Carbon stock is expressed in units of metric tons of carbon per acre. When land is cleared, some percentage of the carbon stored is released back to the atmosphere as 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).

quantitative estimate would require many assumptions about what would happen during the next 100 years onsite under "project" and "no project" conditions (e.g., the life expectancy of the proposed vineyard and existing site vegetation, incidences of disease and fire, etc.).

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 most generous 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.[18] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 7.0 gross acres of new vineyard development would be approximately 65.8 MT CO_{2e} (7.0 acres multiplied by 9.4 MT CO_{2e}).

Project Site Emissions: Project site emissions are emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 7.0 acres of existing developed area, non-native grassland, oak woodland and coniferous forest vegetation to vineyard. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, the Greenhouse Gas Emissions Checklist and associated carbon stock factors developed as part of the 2012 CAP efforts are utilized to determine potential project site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the project site, total carbon stocks for the project site are estimated to be approximately 2,156.40 MT C or approximately 7,913.9 MT CO_{2e} (**Table 7**); based on the 5.4 acres of forest/woodland and 0.6 acres of grass/ruderal land proposed for conversion as denoted in the Biological Reconnaissance Survey (**Exhibit B**).

Table 7 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Project Acreage	Carbon Storage/Stock per Acre (MT C/acre)[1]	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Ruderal/Developed[19]	1.8	1.4	2.52	9.25
Non-Native Grassland	3.3	1.4	4.62	16.96
Oak Woodland	12.8	95.1	1,217.28	4,467.42
Douglas-Fir Forest	9.8	95.1	931.98	3,420.37
Total			**2,156.40**	**7,913.9**

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division, November 2018

There is currently no scientific agreement about the percentage of carbon that would be lost (or emitted) from soils through grading. Some analyses have suggested 20-25% while others have suggested 50%.[20] Using 50% as a more conservative estimate, the proposed project could result in one-time project site construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 1788.6 MT CO_{2e} (**Table 8**).

Table 8 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Project Area for removal	Carbon Loss/Emission per Acre (MT C/acre)	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO2e
Ruderal/Developed	1.0	0.8	0.08	0.29
Non-Native Grassland	0.6	0.8	3.44	12.62
Oak Woodland	4.0	89.6	358.4	1,315.33
Douglas-Fir Forest	1.4	89.6	125.44	460.36
Total			**487.36**	**1788.6**

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division March 2022.

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

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

[19] For the purpose of these GHG calculations the carbon stock associated with Grassland (0.89-acre) is applied to Ruderal/Developed lands.

[20] Napa County, July 12, 2010, Green House Gas Emissions Associated with Vineyard Development & Vineyard Operations, A Compilation of Quantitative Data from Three Recent Projects.

derived using the most generous emissions results from these EIRs. The Suscol Mountain Vineyard EIR anticipated approximately 373 MT CO_{2e} of 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 7.0 gross-acre agricultural development would be approximately 4.69 MT CO_{2e} (3.4 multiplied by 0.67 MT CO_{2e}).

Operational Sequestration Emissions: Emissions associated with loss of sequestration due to land use change (i.e., the conversions of existing vegetation to vineyard) have been calculated based on the Annual Carbon Sequestration Factors within the 2012 Draft CAP, which indicates that oak woodlands sequester 0.425 CO_2 acre per year, grasslands and shrublands sequester a negligible quantity of CO_2 acre per year (essentially zero). The developed land use is not identified by the 2012 Draft CAP and is considered similar to grasslands (essentially zero). Because the 2012 Draft CAP does not identify sequestration factors for the grassland and shrubland vegetation type, the sequestration factor for Croplands of 0.057 MT C per acre per year has been attributed to the grasslands and shrublands that are proposed for removal to provide the most conservative GHG emission estimate. Utilizing these factors, it is anticipated that the annual emissions associated with changes in carbon sequestration as a result of land use changes would be approximately 2.32 MT C per acre per year or 8.5 MT CO2e per year [0.6 acres of grassland times 0.057 MT C = 0.0342 MT C plus 5.4 acres of woodland times 0.425 MT C = 2.295 MT C].

Further, grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops, which are also photosynthetic plants, tends to result in less soil CO_2 loss from vineyard soils. Carbon sequestration loss would be further offset by the proposed vineyard, which would likely act as a sink for atmospheric CO_2, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. In addition to vines, the sequestration of atmospheric carbon is also achieved by the soil between vine rows through cover-cropping.

Project Emissions:

Based on the above estimates, the proposed project could result in one-time construction emissions of up to 1854.4 MT CO2e and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 13.19 MT CO_{2e} per year (**Table 9**).

Table 9 – Estimated Overall Project-Related GHG Emissions

Construction Emissions in Metric Tons of $C0_{2e}$		Annual Ongoing Emissions in Metric Tons of $C0_{2e}$	
Source	**Quantity**	**Source**	**Quantity**
Vehicles and Equipment	65.8	Vehicles and Equipment	4.69
Vegetation and Soil	1788.6	Loss of Sequestration	8.5
Total	**1854.4**	**Total**	**13.19**

Source: Napa County Conservation Division, March 2022

There is no adopted CEQA significance threshold at the state, regional, or local level for construction-related GHG emissions, and the County has therefore evaluated the significance of one-time project-generated emissions of up to approximately 1,854.4 MT CO_{2e} by considering the size of the proposed vineyard in relation to projected vineyard development in the County. The program level EIR for the 2008 Napa County General Plan Update (SCH#2005102088 certified June 3, 2008) projected 12,500 acres of new vineyard development in the County between 2005 and 2030. The County concluded in the General Plan EIR that emissions from all sources over the planning period would result in significant and unavoidable GHG emissions despite measures adopted to address the impact. Because this determination was based on emissions from all sources, not just agriculture, the General Plan did not determine that emissions solely from projected agricultural development would result in significant unavoidable impacts. Pursuant to Section 15183(a) of the California Code of Regulation (CCR), projects that are consistent with the general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects which are peculiar to the proposed project or its site.

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.056% of the vineyard development anticipated in the General Plan EIR. The proposed project also contains measures to reduce and/or offset emissions from vineyard development and vineyard operations such as maintaining a permanent no-till cover crop density of a minimum 85%, vegetated vineyard avenues, and the maintenance and establishment of grape vines. These measures in conjunction with the Air Quality conditions of approval (detailed in **Section III [Air Quality]**) would further reduce potential GHG air quality impacts associated with construction and ongoing operation of the proposed project.

For these reasons, the County does not consider one-time GHG emissions from the proposed vineyard development to be a significant impact on a project level basis or to be a “considerable” contribution to significant unavoidable cumulative impacts identified in the General Plan EIR.

Further, as stated above, per the OPR Technical Advisory, the addition of 110 or fewer daily trips could be presumed to have a less than significant VMT impact. As detailed in **Section XVII (Transportation)**, harvest would generate up to approximately four one-way worker trips for crews of approximately 10-15 workers, anticipated to carpool. Other typical vineyard operations (as outlined above), and recycled water truck trips during the tree replanting plan reestablishment, are anticipated to generate up to 6 additional vehicle one-way trips per day during the days these activities occur. Therefore, daily trips (including passenger vehicle trips and truck trips) generated by the proposed project would be well below the Governor's Office of Planning and Research's recommended screening criterion threshold for small projects generating fewer than 110 trips per day; therefore, less-than-significant impacts related to operational GHG emissions are anticipated.

Given that the proposed project would propose tree replanting and preservation, and that the operational vehicle miles traveled fall well below the established threshold of 110 daily trips, the project is considered to be consistent with the State's long-term climate goals of being carbon neutral by 2045; therefore, a less-than-significant impact is anticipated.

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

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

The National Resource Conservation Service (NRCS) 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).

Chemicals for vineyard operation would be stored at an off-site location and mixing will also occur offsite. The nearest water source (i.e. ephemeral drainage) on the project site is more than 100 feet from the proposed vineyard development areas, consistent with NCC Section 18.108.025. Fertilizers would be applied as necessary to the vineyard and to ensure the specified percent vegetative cover crop is achieved. No pre-emergent herbicides would be strip sprayed in the vinerows for weed management. Project storage and staging areas would be located within proposed clearing limits per the ECP Plans and Narrative (**Exhibit A** and **Exhibit A-1**).

The risk of potentially hazardous materials reaching or affecting adjacent water courses or other aquatic resources is significantly reduced because: i) the proposed project would maintain buffers greater than 50 feet from the blue-line streams; ii) project staging and storage areas would be a minimum of 50 feet from aquatic resources; and iii) 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 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.

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

- Workers shall follow manufacturer's recommendations on use, storage and disposal of chemical products.
- Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
- During routine maintenance of equipment, properly contain and remove grease and oils.
- Discarded containers of fuel and other chemicals shall be properly disposed of.
- Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
- All refueling, maintenance of vehicles and other equipment, handling of hazardous materials, and staging areas shall occur at least 100 feet from watercourses, existing groundwater well(s), and any other water resource to avoid the potential for risk of surface and groundwater contamination.
- To prevent the accidental discharge of fuel or other fluids associated with vehicles and other equipment, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

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

c.

The closest school is located approximately 2.7 miles to the southeast of the project site (Foothills Adventist Elementary) located outside of the St. Helena (Napa County GIS, Schools Layer). 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 public airport to the project site is the Napa County Airport, located approximately 3.9 miles east 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.

The proposed project is anticipated to introduce a small number of workers visiting the project site on a temporary basis for ECP and vineyard installation and on a seasonal basis for subsequent vineyard operations, resulting in a minor increase in the number of people working or residing at the project site. However, given the relatively small size of the proposed project, it is not anticipated that the minor increase would impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

g.

No structures are proposed as part of the project. The project parcel is located in an area identified as being located within a very high fire hazard severity zone; the Glass Fire impacted the parcel in 2020. The parcel is located within the State Responsibility Area (CALFIRE 2007 - https://egis.fire.ca.gov/FHSZ/). The risk of fire in vineyards is very low due to 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 vineyard 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 impacts 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 approximately 1,300 feet west of the proposed project well.

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 #P22-00153-ECP 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 this impact 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 three existing groundwater wells located in the project site (project well identified as Well 1). 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 (OEI, October 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 seven neighboring wells located within 500 feet of the project's well (Well 1), and a review of potential impacts to surface waters is included due to the proximity of Dutch Henry Creek approximately 1300 feet west of the project site.

Well Interference: According to the WAA, the proximity of the project well (Well 1) relative to neighboring wells ranges from 200 feet to 500 feet. Information from the project and neighboring wells application/permit/completion documentations and soil properties from the subject parcels were used to estimate the well drawdown at the neighboring non-project wells. The project well is estimated to have a pumping rate of less than 10 gallons per minute (gpm). Using a Representative Hydraulic Conductivity Range, which is consistent with the WAA guidance Document's Table F-4, the estimated drawdown at the neighboring wells after one (1) day of continuous pumping of the project well is estimated to be between 0.1 feet and 1.1 feet which is less than the allowable 10 feet criteria. Therefore, pumping of the project well is not anticipated to negatively impact the existing neighboring wells (**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. The nearest Significant Streams to the project well is Dutch Henry Creek (located ~1,300 feet from the proposed vineyard development). The project well is within 1,500 feet of this Significant Stream; therefore, a Tier 3 analysis was prepared (**Exhibit E**). An analysis of potential interaction between groundwater in the project aquifer accessed from Well 1 and surface water in Dutch Henry/Biter Creek and the Napa River concluded that hydrogeologic conditions create significant vertical separation between the aquifer and surface water such that significant streamflow depletion is not expected to occur.

The Tier 3 WAA guidance provides well set-back standards and construction assumptions that "if applicable would be expected to preclude any significant adverse effects on surface waters". Specifically, the "Tier 3 Groundwater Surface Water Interaction Criteria" section (pp. 10-13 of the Napa County guidance document dated May 12, 2015) states:

The groundwater/surface water criteria are presumptively met if the distance standards and project well construction assumptions are met (see Tables 3, 4, and 5). (p. 10)

These standards consider the planned pumping rate of the project well along with the well depth, screened interval and seal depth along with aquifer hydraulic conductivity values and present acceptable distances based on specific combinations of all parameters. Tables 3, 4 and 5 in the Napa WAA guidance document present these distance standards and assumptions for wells constructed in unconsolidated (e.g. alluvium) aquifer materials and unconfined aquifers; these assumptions are intended primarily for wells in the Napa Valley Groundwater Basin (NVGV – Groundwater Sustainability Boundary). According to the WAA (**Exhibit E**) the project well in this case is not in alluvium and is outside the boundary of the NVGB. The operational pumping rate of the project well is 10 gpm. Table 3 of the County's WAA guidelines indicates that wells with pumping rates <10 gpm are not considered to have adverse effects on streamflow if located more than 500 feet from the stream channel of concern (Dutch Henry Creek). The project well is not within the 500 foot buffer of concern from the Dutch Henry Creek stream channel. However, as the project well seal extends to a depth of 30 feet (while the WAA guidance documents suggest a minimum seal depth of 50 feet) additional evaluation of hydrogeologic conditions was necessary.

According to the WAA, the local groundwater system is comprised of a confined bedrock aquifer defined vertically by the elevation of the uppermost elevation of rock strata interpreted to be confining groundwater below this elevation. The WAA assessed various wells within the vicinity of the project well and parcel wells and found that many of the wells within the larger aquifer recharge area (Wells 1, 2, 3, and 20, as noted in the WAA) exhibit characteristics indicative of a confined aquifer with water surface elevation in the well above than the uppermost well screen elevation. The interpretation of confined aquifer conditions based on comparison of water elevation and screen elevation in wells 4, 19 and 33 is less compelling, but these wells have most of their screened interval extending to depths of > 200 ft bgs indicating that much of the saturated aquifer lies at significant depth and is not derived from shallow groundwater that is most likely to interact with surface water. As noted in the WAA, Groundwater elevations in wells with well head elevations less than 300 ft are substantially lower than the thalweg elevation of the Napa River (~260 ft); this is also true of the thalweg elevation of Biter/Dutch Henry Creek (~275 ft). Where the groundwater elevation is above the thalweg elevation (subject property Wells 2 and 3), this is a consequence of the well head elevations (370 ft) substantially above the valley terrace/fan elevation (~280 to 300 ft) and is indicative of the upland groundwater source areas to the north and east of the valley. Conditions for the project well (Well 1), indicate a confined aquifer where well screens and confining geologic strata are substantially below the Napa River thalweg elevation. The well seal extends 30 ft bgs to elevation 260 ft, essentially equal to the Napa River thalweg elevation. These observations and interpretations indicate that groundwater in Well 1 is vertically isolated from the bed of the Napa River. (**Exhibit E**)

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.

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. As a result of this project, water demand on the project parcel is estimated to increase from 1.57 to 4.39 acre-ft/yr. Analysis of the averaged 10-year period of precipitation for Water Years 2012 to 2021 resulted in recharge of 16.4 acre-ft/yr across the project parcel and 130.3 acre-ft/yr across the recharge/impact area. Proposed project use represents 27% of the mean annual recharge across the project parcel while use across the larger recharge/impact area is estimated to be 46% of average annual recharge for the WY 2012-2021 period. The analysis of groundwater recharge in relation to groundwater demand on the project parcel and in a larger groundwater recharge/impact area concluded that the project would not result in significant declines in groundwater elevations or depletion of groundwater resources.

Considering: i) anticipated annual water use of the proposed project and project well groundwater recharge area of approximately 4.39 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 16.4 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) 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 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 PBES 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 vineyard would alter the composition of the existing land cover and infiltration rates, which could affect erosion and runoff. The proposed project does not propose any alteration to a stream, river, or drainage course, or include the creation of impervious surfaces that would concentrate runoff.

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 a no-till cover crop with vegetative cover density of at least 85% for the vineyard block and the annual application of straw mulch cover on all disturbed areas at a rate of 3,000 pounds per acre. 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 **Exhibits A**, **C** and **D** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include straw wattles and mulching. Straw wattles would be placed on contour at various locations around the perimeter of the vineyard blocks and within vineyard avenues to slow and maintain surface/sheet flow. Straw wattles are spaced according to the USLE to maintain soil losses below the tolerable levels for the soil types found on the site and to ensure (in conjunction with the cover crop and other runoff control features) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the project. The design and location of straw wattles would have a negligible effect on existing drainage patterns in that they would not alter the existing topographic contours of the site. Erosion control features would maintain soil losses below the tolerable levels for the soil types found on the site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs beyond pre-development conditions as a result of the proposed project. The erosion control features would not alter the existing topographic contours of the site.

A Hydrologic Analysis for the proposed project was prepared by the Project Engineer (Bartelt Engineering, January 2023 - **Exhibit C**). The Hydrologic Analysis utilized the Natural Resource Conservation Service (NRCS) Technical Release TR-55, and the SCS Runoff Curve Number (CN), method to conclude that there would be no change in peak flow for all watersheds in the development area (**Table 11**). The Hydrologic Analysis also concluded that the runoff time of concentration, which is the time it takes for runoff to flow from the upper most point in each watershed to the watershed's outlet, is anticipated to be reduced compared to existing conditions.

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

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)
Pre-project conditions	0.84
Post-project conditions	0.79
Change (cfs)	0.05
Change (%)	-5.95%

Source: Bartelt Engineering, January 2023, Hydrology Evaluation (**Exhibit C**)

That the proposed project does not increase runoff flow rates is consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be greater than predevelopment conditions. Additionally, as discussed in **Section VII (Geology and Soils)**, the proposed project is not anticipated to change the soil loss when 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, 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 increase in runoff volume or decrease in time of concentration 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[21]. 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 ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the ECP adjacent to 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 effect on or offsite water resources. Because the proposed project as designed is not expected to increase runoff rates or times of concentration in relation to existing conditions (as discussed in question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is not anticipated to change the existing soil loss and sedimentation and would have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECP 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, water courses, 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 ECP approval.

[21] Compliance with Section 18.108.135 is achieved by including their provisions as conditions of approval for a project, if granted.

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 proposed site is in a rural area of Napa County and the nearest established community, Calistoga, is approximately 2.1 miles west of the project site. Therefore, the proposed vineyard and subsequent vineyard operations would not physically divide an established community and no impact would occur.

b.

Surrounding land uses include rural residences, vineyard, and open space. Surrounding parcels are zoned Agricultural Watershed (AW) and designated Agriculture, Watershed and Open Space (AWOS) 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 Policies CON-13 and CON-16, which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources. Biological Resources Reconnaissance Survey and Northern Spotted Owl surveys were prepared for the proposed project. The project as proposed would avoid potential direct, indirect, and cumulative impacts to special-status plant species and associated habitat occurring on the project site. With implementation of **Mitigation Measures BIO-1** and **BIO-2**, potential impacts to special-status birds, raptors, NSO and bats would be avoided. Furthermore, implementation of this measure would not affect the feasibility of the proposed project in that, impacts to special-status species and their habitat can be avoided while allowing for agriculture to be developed and operated on the project site.
- The project site does not contain existing wetlands and would retain mature trees located upslope from the ephemeral stream located on the parcel, additional tree planting is also proposed to help restore the area that was impact by the 2020 Glass Fire. As a result, 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.
- As proposed, the project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resources Reconnaissance Survey and North Spotted Owl Assessment were prepared for the proposed project (**Exhibit B** and **B.2**).
- The proposed project as proposed is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. The project as proposed does include the installation of any new or additional deer fencing as the parcel is already fenced in, a conditions of approval has been included to install fencing that allows for movement of smaller wildlife.
- The project as proposed 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 would reduce soil loss, potential sedimentation and 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 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 result in no change to runoff.
- The project as proposed 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 project as proposed 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 project as proposed is consistent with General Plan land use designation of Agriculture, Watershed and Open Space (AWOS), 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 located one to the southwest of the project site. Proposed site improvements and development of vineyard on the parcel 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.

The project site is located in a rural setting where surrounding parcels are generally undeveloped, planted with vineyards and contain wineries. The nearest offsite residences to the project site are located approximately 510 feet to the north, 790 feet to the southwest and 820 feet to the northwest of the project site. Additionally, adjacent proprieties and properties in the immediate area contain vineyard.

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, excavator, dump truck, trencher, backhoe, and small trucks. **Table 12** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 12**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 11 – Construction Equipment Noise Emission Levels

Equipment	Typical Noise Level (dBA) 50 feet from Source	Equipment	Typical Noise Level (dBA) 50 feet from Source
Backhoe	80	Roller/Sheep's Foot	74
Bulldozer	85	Scarifier	83
Chainsaw	86	Scraper	89
Compactor	82	Shovel	82
Excavator/Shovel	82	Spike driver	77
Grader	85	Truck	88
Loader	85	Wood Chipper	89

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

Table 13 characterizes the typical reduction in construction equipment noise levels as the distance increases from the source, based on a source noise level of 90 dBA.

Table 12 – Estimated Distance to dBA Contours from Construction 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 65-55 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, 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 ATV's, tractors, grape haul trucks, passenger cars, and light trucks, which would occur on a temporary and seasonal basis. **Table 14** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 13 – Estimated Distance to dBA Contours from Farming 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 60 to 50 dBA or below at the closest existing offsite residences.

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). 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 vineyard. 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 of the proposed project would generate a minimal number of employees to the project site on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the project site on an ongoing basis. It is anticipated that these employees would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the proposed 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 employees 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?	☐	☐	☐	☒

Discussion

a-b.

Currently, the project site is developed with existing dirt and paved roads, a single-family residence, two barns, pool, three wells, utilities, water storage tank and associated residential landscaping.

The proposed project is expected to generate approximately 50 one-way worker trips per day for work crews of between 2-3 workers per vehicle, which includes trips anticipated for project mobilization and demobilization for equipment and materials delivery and pick up. Construction equipment is anticipated to include a crawler tractor (D-8 or larger), tractor/trailers, backhoes, trencher, and pickup trucks, passenger vehicles, and other small to medium service vehicles. Vineyard operations, including pruning and harvest is anticipated to require up to approximately four one-way worker trips per day for work crews of approximately 10-15 workers who are anticipated to carpool. Approximately two additional one-way trips per day are anticipated for grape haul trucks during harvest which is expected to be one to five days. An additional four one-way trips for two days are anticipated for water truck deliveries during establishment of the tree replanting plan. Equipment for vineyard operations is anticipated to include a tractor/trailer, a mower, a forklift, grape trucks, pickup trucks, passenger vehicles and other small to medium service vehicles (i.e., ATV). Vineyard operations would result in 8 trips, which is less than the 110 VMT trips noted by the Air Quality and Greenhouse Gas Analysis prepared for the project (**Exhibit H**); whereby projects are considered to have a less than significant impact on transportation GHG levels. 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, including harvest, would also be intermittent during the non-peak hours, generally arriving around 6 a.m. and departing around 3 p.m.

Implementation of the proposed project would be in accordance with the Miller ECP prepared by Bartelt Engineering (March 31, 2023 - **Exhibit A-1**). 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).

The project site is accessed from an existing private road/driveway which is accessed off of Silverado Trail. Trucks and other equipment would use County roads or State highways for very short periods during construction and subsequent vineyard operation.

Traffic generated by construction of the proposed project and subsequent vineyard operation, including harvest, would increase traffic on area roadways and result in additional vehicle miles traveled compared to current conditions. These activities would occur on a temporary and/or seasonal basis, and they would generally occur during non-peak hours. The proposed project would result in a minimal increase in traffic levels along the local roadways compared to existing conditions, and would not result in decreased travel times on roads in the vicinity of the proposed project or a substantial increase in vehicle miles traveled given the scale of the proposed project. Further, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, or designated bicycle and pedestrian facilities or with CEQA Section 15064.3(b). Therefore, the impact would be less than significant.

c.

The project proposes to utilize the existing paved private road, which connects to Silverado Trail, for project development (**Figures 1-3**). The proposed project does not include roadway improvements and/or modifications to said existing roadways, 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 property and other Agricultural Watershed and Agricultural Preserve zoned properties as well as agricultural uses in the area. Therefore, the potential for the creation, substantial increase in hazards or hazards due to a geometric design feature and 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.

	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 to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on June 21, 2022. On July 12, 2022, the County received a response letter from Yocha Dehe Wintun Nation, indicating that the project site is not within the aboriginal territories of the Yocha Dehe Wintun Nation, and declined to comment. The Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria did not request consultation within the 30-day notification period, and because no response to the consultation invitation was received, the consultation time period elapsed.

a-b.

As discussed in **Section V (Cultural Resources**), the proposed project's Cultural Resource Reconnaissance did not identify any historical or archaeological resources within the project area, although the probability of encountering cultural resources was determined to be high. Therefore, the proposed project would result in less than significant impacts to Tribal Cultural Resources, including those that may be eligible for the CHRIS 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

a.

The proposed project would generate a minimal number of employees to the property on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of employees to the property on an ongoing basis. It is anticipated that these employees 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 one existing groundwater well would provide irrigation water to the vineyard.

Irrigation pipelines would be located within existing roadways, vineyards and vineyard avenues, and/or within proposed clearing limits. The proposed project would include the installation of a limited number of onsite storm water drainage features such as straw wattles and a permanent no-till vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage system 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), IV (Biological Resources), V (Cultural Resources)** and **IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.

b.

The approximately 7.0 gross acres of vineyard (approximately 5.6 net acres) would be irrigated by groundwater supplied by one of the existing onsite wells. The WAA conducted by OEI and Bartelt Engineering (**Exhibit E**) concluded that after full development, water use for the project parcel is estimated to be approximately 4.39 AF/yr, an increase from the existing water demand of 1.57 AF/yr. The water demand of 4.39 AF/yr is below the 16.4 AF/yr of estimate annual recharge. Therefore the proposed project, in conjunction with the existing uses, is anticipated to have a less than significant impact on water supplies. Also see **Section X (Hydrology and Water Quality)** for additional disclosures and analysis.

c.

Given the small number of employees 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 rock is expected to be generated by vineyard development. Rock generated during vineyard preparation would be utilized onsite primarily in landscaping. Rock that is not used immediately would be stockpiled for future use inside the proposed clearing limits. Solid waste generated during construction activities (e.g., broken pipe, fittings, trellis, end posts, etc.) would be negligible. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of by being chipped and disposed of onsite. 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 Hazard Severity Zone (CALFIRE, 2007, Napa County GIS Fire Hazard Layer). General topography of the parcel is gently to moderately sloped with all aspects represented, and elevations ranging from 947 to 1665 feet above mean sea level (msl), within the eastern hills of Napa Valley.

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.

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 due to the short duration of construction (approximately six months). Operation and maintenance activities would be similar to activities already occurring on the project site with the existing vineyard. The proposed project does not include any infrastructure that would exacerbate fire risk. 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, the proposed project includes temporary and permanent erosion control measures which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite and there would be a decrease in peak flow in the development area (see **Section X [Hydrology and Water Quality]**). The onsite residence and residence closest to the proposed vineyard are located on relatively flat terrain. 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 the 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 #P22-00153-ECP, 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.

Existing deer fence surrounds the parcel and no new fencing is proposed. Removal of trees canopy and vegetation could result in potentially significant direct, indirect and cumulative impacts on special-status and migratory birds, through removal of shelter and foraging habitat, and indirect construction-related disturbance (e.g., noise) to nesting birds including raptors and Northern Spotted Owl. Implementation of **Mitigation Measure BIO-1** would reduce potential impacts on special-status and migratory birds, raptors and Northern Spotted Owls by requiring that a qualified biologist conduct a preconstruction survey, followed by preparation of avoidance measures and exclusion buffers prior to project initiation. Implementation of **Mitigation Measure BIO-2** would reduce potentially direct and indirect significant impacts on special-status bat species to a less-than-significant level. With implementation of the cultural resources conditions of approval to protect cultural resources that may be discovered accidently, significant impacts to cultural resources are not expected (**Section V [Cultural Resources]**). Therefore, the proposed project as designed with the incorporation of mitigation measures, the proposed vineyard development project would have a less than significant potential to degrade the quality of the environment.

b.

The project site is located within the Dutch Henry Creek and Napa River – Bale Mill Reach.

The Dutch Henry Creek Drainage contains approximately 2,570.6acres. In 1993, vineyard acreage within this drainage was approximately 121acres, or 4.7% of the drainage. Since 1993, approximately 82 acres of additional vineyard (or 3.2% of the drainage) have been developed (or approved) to vineyard, resulting in approximately 7.9% of the drainage (approximately 203 acres) containing vineyard. It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils (PPS) within the Dutch Henry Creek Drainage, that there are approximately 196.5 acres (7.6% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 203-acres), this results in a total potential build out of approximately 399 acres or approximately 15.5% of the drainage. The PPS 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.

The Napa River – Bale Mill Reach Drainage contains approximately 1231.6 acres. In 1993, vineyard acreage within this drainage was approximately 402.4 acres, or 32.7% of the drainage. Since 1993, approximately 83 acres of additional vineyard (or 6.8% of the drainage) have been developed with, or approved for, new vineyard, resulting in approximately 6% of the drainage (approximately 485.9 acres) containing vineyard. It is estimated, based on evaluation of the County's GIS layer identifying PPS within the Napa River- Bale Mill Reach Drainage, that there are approximately 225.6 acres (18.3% of the drainage) having the potential to be developed to vineyard. In conjunction with existing and approved vineyard development (approximately 485.9-acres), this results in a total potential build out of approximately 711.5 acres or approximately 57.8% of the drainage.

While it is not possible to quantify precisely the acreage and location of additional vineyard development that may be proposed by property owners in this drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount of 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 and Napa River – Bale Mill Reach drainages) 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 7-acres of agriculture were developed per year (203 divided by 29). Over the past 29 years within the Napa River – Bale Mill Reach drainage, approximately 24.5-acres of agriculture were developed per year (711.5 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 21 to 35-acres over the next three to five years within the Dutch Henry Creek drainage is considered a reasonable estimate. For the Napa River – Bale Mill Reach drainage, the development of approximately 73.5 to 122.5-acres over the next three to five years is considered a reasonable estimate. NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), setbacks of 50 feet from wetlands, and retention of 70% of a property's cover canopy, and General Plan Conservation Policy CON 24c that requires the retention of oak woodland at a 2:1 ratio, all of which limit 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 (#P22-00153-ECP) includes the removal of vegetation (including non-native grassland, oak woodland, and coniferous forest) and installation of vineyard and erosion control measures concurrent with other projects in the air basin that would generate emissions of criteria pollutants, including suspended particulate matter (PM) and equipment exhaust emissions. For construction-related dust impacts the Regional Water Board recommends that significance be based on the consideration of the control measures to be implemented (Regional Water Board, May 2017). As discussed in **Section III** (**Air Quality**) and shown in **Table 3** (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 gases that contribute to climate change (**Tables 5** and **6**). 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 may off-set (in whole or in part) 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:

The project proposed to remove 1.4 acres of coniferous forest and 4.0 acres of oak woodland from the parcel and convert to vineyard (refer to **Section IV, Biological Resources**). Existing stands of valley oak (0.2 acres) and white oak (0.1 acres) are completely avoided by the proposed project and only coast live oak woodland is proposed for removal from the site existing mixed oak canopy. Oak woodlands are not considered sensitive by CDFW or included as sensitive in the NCBDR; however, the 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, soil protection, and species diversity. Policy CON-24c specifically calls for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio. Code Section 18.108.020(C) requires that 70 percent of canopy cover be retained based on the on-site canopy present on June 16, 2016. Code Section 18.108.020(D) requires that the removal of tree canopy on an acreage basis be mitigated at a 3:1 ratio (which is equivalent to 75 percent retention) where the areas to be preserved must generally occur on slopes less than 50 percent and outside of stream and wetland setbacks. Since the parcel burned in the 2020 Glass Fire, it is subject to Code Section 8.80.130(A) which requires that the vegetation canopy cover be based on that existing on the parcel on June 19, 2018. Living canopy cover mapped based on living trees and a 2018 aerial photograph results in 12.8 acres of oak canopy cover throughout the entire Study Area, of which 4.0 acres are situated within the subject parcel (31% percent of total in the Study Area) **(Exhibit B**). A Condition of Approval has been included to require the recordation of a permanent preservation easement of 16.2 acres of identified oak canopy and coniferous forest to achieve consistency with NCC Section 18.108.020.E and Policy CON-24. Therefore, the proposed vineyard ECP, if approved, will comply with the County Code vegetation canopy cover retention requirements.

A project specific Biological Resources Reconnaissance Survey was performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species as a result of the proposed project. The reconnaissance survey included a records search to identify the presence or potential presence of special-status species within the project area. The records search included the USFWS, CNDDB, and CNPS databases. As discussed in **Section IV** (**Biological Resources**), no special-status plants were identified on the project site. Three special-status bird species and bat were identified as having the potential to occur on the project site. Potential impacts associated with the removal of potential nesting habitat for birds and roosting bats would be reduced through implementation of **Mitigation Measures BIO-1** and **BIO-2.** Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Resources – Sections V and XVIII:

No potential cultural resources were identified in the project site (i.e., a structural debris and depression). With the incorporation of the cultural resources condition of approval to ensure protection of 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:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced from 244.19 tons per acres per year across the development area to 23.1 ton per acre per year (**Table 5**). The reasons for this reduction is due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of straw wattles that reduce overland flow velocities and erosive power, and trap eroded soil on-site, thereby reducing soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions the proposed project is not anticipated to contribute cumulatively to sediment production within the Napa River – Bale Mill Reach and Dutch Henry Creek drainages; 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, the County's General Plan Goals and Policies, in particular General Plan Conservation Element Policy CON-48 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.

Hydrology and Water Quality - Section X:

As discussed in **Section X (Hydrology and Water Quality)**, the total proposed water demand resulting from the proposed project would be 4.39 AF/yr, representing a 2.82 AF/yr increase in total groundwater use for the parcel from existing conditions. This is below the 16.4 AF/yr of estimate annual recharge.

As discussed in **Section X (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the TR-20 Runoff Model has been prepared by Bartelt Engineering (January 2023 - **Exhibit C**). Because the proposed project does not include diversions, create concentrated flows or

otherwise alter site drainage patterns, and does not materially alter site slopes there will be a slight decrease in runoff volumes or time of concentrations expected as compared to pre-project conditions (**Exhibit C**), 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 that 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 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]**).

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, Hazards and Hazardous Materials, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Utilities and Service Systems, and Wildfire. Nighttime activities are proposed to occur approximately 5 times per year, therefore impacts from lighting would be temporary in nature. The potential contribution to aesthetic impacts associated with the proposed project is considered to be less than cumulatively considerable. The proposed project does not conflict with any current zoning for agricultural or forestry use, nor does the proposed project conflict with the any applicable land use plan, policies, or regulation as mitigated and conditioned. 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, the proposed project would not adversely impact current or future public services, or require the need for utilities and service systems. 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 this proposed project that may be individually limited, but cumulatively considerable, would be less than significant.

c.

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

LIST OF FIGURES:

LIST OF TABLES:

LIST OF EXHIBITS:

- Exhibit A - Bartelt Engineering, Submittal May 2022 (Revised March 2023), Erosion Control Plan, Miller Vineyards, 3906 Silverado Trail
- Exhibit A.1 - Bartelt Engineering, May 2022 (Revised March 2023), Erosion Control Plan Narrative, Miller Vineyards, 3906 Silverado Trail
- Exhibit B - Forest Ecosystem Management and Salix Natural Resource Management, November 2021 (Revised March 2023), Biological Resources Reconnaissance Survey Report, Miller THP/Conversion, 3906 Silverado Trail, Calistoga, Napa County, California
- Exhibit B.1 - Environmental Resource Management, May 2023 (Revised June 2023), Tree Planting Plan
- Exhibit B.2 - Forest Ecosystem Management, 2021 and 2022, Northern Spotted Owl Assessment, Miller THP/Conversion
- Exhibit C - Bartelt Engineering, January 2023, Hydrology Evaluation, Miller Vineyard, 3906 Silverado Trail, APN: 021-030-006
- Exhibit D - Bartelt Engineering, May 2022, Universal Soil Loss Evaluation Analysis, Miller Vineyards, 3906 Silverado Trail, APN: 021-030-006
- Exhibit E - O'Connor Environmental, Inc. and Bartelt Engineer, October, 2023, Water Availability Analysis, Miller Vineyards, 3906 Silverado Trail, APN: 021-030-006, Napa County, California
- Flaherty Cultural Resource Services (FCRS), Cultural Resource Reconnaissance, August 2015, Cultural Resource Reconnaissance of 28.7 acres near Calistoga, Napa County California, APN 021-030-006, 3906 Silverado Trail.
- Exhibit F - Environmental Resource Management, Emergency Notice of Timber Permit
- Exhibit F.1 – Environmental Resource Management, Completion Report Emergency Timber Harvest
- Exhibit G Environmental Resource Management, Timber Harvesting Plan: Miller Vineyard, 9-7-2023
- Exhibit H - Bartelt Engineering, November 2022, Air Quality and Greenhouse Has Analysis for the Miller Vineyard Project, Miller Vineyards, 3906 Silverado Trail
- Exhibit I - Application Submittal Materials
- Exhibit J – Project Revision Statement