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

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

1. **Project Title:** SHL Cathiard Vineyard Komes Ranch, Agricultural Erosion Control Plan Application (ECPA) #P20-00103-ECPA

2. **Property Owner(s):** SHL Cathiard LLC

3. **Contact Person, Phone Number and Email:** Donald Barrella, Planner III, (707) 299-1338, Donald.Barrella@countyofnapa.org

4. **Project Location and APN:** 1889 West Zinfandel Lane, St. Helena, CA 94574, APN 027-100-037 (**Figures 1** and **2**)
   Section 7 Township 07 North Range 05 West, Mt. Diablo Base
   Longitude 38° 28' 34.30" N / Latitude 122° 27' 37.47" W

5. **Project Sponsor:** SHL Cathiard LLC
   Attn: Sean Maher
   1889 West Zinfandel Lane
   St. Helena, CA 94574

   Agent: Sarah Pistone (CPESC #9225)
   LincolnAE LLC./HDVine LLC
   2778 Royal Oak Place
   Santa Rosa, CA 95403

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

7. **Zoning:** Agricultural Preserve (AP) and Agricultural Watershed (AW)

8. **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 15.3 gross acres of vineyard (i.e., development area, project area or proposed clearing limits) with approximately 13.1 net planted acres within two vineyard blocks (M and O) located on an approximate 203-acre property (i.e., project site). The project also includes an associated landslide repair encompassing 2-acres within Vineyard Block O. The acreages of each proposed vineyard blocks are indicated in **Table 1**. Average slopes within the development area range from 9 percent (%) to 23%. Proposed Block O contains 0.4 acre with slopes greater than 30%. The project would remove 2.99 acres of woodland/forest containing an estimated 386 trees, and 12.31 acres of grassland. Rock removed during the clearing and development of the land would be stored within the disturbed area and used for rock benches and landscaping.. There would be no transport of spoils off-site. The vineyard would be irrigated with 4.4 acre-feet per year (AF/year) of surface water diverted to storage under an existing water right permit (Permit 17297 [Application 24287]) and a pending water right application (Application 30597). New wildlife exclusion fencing would connect with existing fencing on the project site to enclose the proposed vineyard blocks.

Table 1 – Proposed Vineyard Block Acreage

Block Number	Gross Acreage	Net Acreage
M	2.40	1.90
O	12.90	11.20
Total	**15.3**	**13.1**

Erosion Control Measures: Temporary erosion control measures include installation of silt fencing along the downslope side of the vineyard blocks, application of straw mulch at a rate of 4,000 pounds per acres, fiber rolls, and other practices as needed. Permanent erosion control measures include: installation of rolling dips along vineyard avenues, drainage improvements (including diversion ditches, drop inlets, subsurface drain lines, and level spreader), landslide repair, rock benches, and a permanent cover crop maintained at a minimum vegetation cover density of 80%. Details of the proposed erosion control measures are provided in the Cathiard Vineyard ECPA, revised November 2020, prepared by Sarah Pistone (CPESC #9225) of LincolnAE LLC./HDVine LLC. (**Exhibit A-1**).

Earthmoving: Earthmoving and grading activities associated with the project and subsequent installation of erosion control measures and vineyard operation include, but are not limited to vegetation removal, soil ripping, rock removal and temporary storage, the landslide repair, disking, trenching for irrigation pipelines, and the development of erosion and runoff control measures.

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

a. Installation of vineyard trellis and drip irrigation systems, and planting rootstock in a 4-foot by 7-foot spacing pattern for an approximate vine density of ±1,556 vines per acre.
b. Avenues that require turnaround would be 24-feet wide and may be narrower (10 feet) parallel to vine rows.
c. Ongoing inspection and maintenance of temporary and permanent erosion and runoff control measures.
d. Ongoing operation and maintenance of the vineyard, which includes: vine management (pruning, fertilization, and pest and disease control), weed control, cover crop mowing, irrigation and trellis system maintenance, and fruit harvesting. Pre-emergent herbicides would not be strip sprayed in the vine rows for weed management. Contact or systemic herbicides may be applied annually between March and July to ensure adequate vegetative cover. Weed control between rows would done by a tractor-operated mower annually between June and August.

Table 2 lists a general schedule for the construction of the proposed project as identified in #P20-00103-ECPA and **Table 3** outlines typical general ongoing vineyard operations. The vineyard would be developed in two phases, with construction occurring up to six months each year. The final implementation schedule is pending action on #P20-00103-ECPA.

Table 2 – Implementation Schedule

April 1 to October 15[1]	Clear and prepare planting area. Install erosion control, drainage improvements, rolling dips, etc. Install drip, trellis system and vines. Seed cover crop and straw mulch disturbed areas.

[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 3 – Annual Operations Schedule

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

Vineyard construction would require up to six truck trips delivering heavy equipment generally occurring during the first two weeks of construction and over the last two months of the construction. Up to six passenger vehicle round trips per day would occur during construction. Anticipated construction equipment would include a tractor and disk, excavators, bulldozers, loaders, water truck, and farm tractors with trailers.

Pruning would require up to four workers and harvest would require up to five workers. Up to four passenger vehicle round trips per day would occur seasonally during operation. Up to two truck round trips per day would occur during harvest. Anticipated equipment for vineyard operations would include a tractor with trailer, a forklift, and ATVs and passenger vehicle and/or light trucks.

Implementation of the proposed project would be in accordance with the SHL Cathiard LLC Vineyard (P20-00103) Track I Erosion Control Plan prepared by LincolnAE LLC, Agricultural Engineering (November 2020 - **Exhibit A-1**) and the Landslide Repair Site Improvement Plans (April 2021 - **Exhibit A-2**). The proposed project is further described in the application materials including the Supplemental Project Information sheets. All documents are incorporated herein by reference and available for review in the Napa County Department of Planning, Building and Environmental Services (PBES), and at https://pbes.cloud/index.php/s/99KAWoskwSLBQoB .

9. Describe the environmental setting and surrounding land uses.

The 203-acre project site is located at 1889 West Zinfandel Lane in St. Helena, California (**Figures 1-3**). Existing facilities include a winery (P15-00111-MOD) and office buildings, approximately 69 acres of vineyard (approximately 59 net-planted acres), four water storage reservoirs and one developed spring, two wells, and undeveloped lands. Surrounding land uses include vineyard, wineries, rural residential, and undeveloped land. The land cover types on the project site consists of Douglas fir forest, mixed oak woodland, ghost pine forest, blue oak woodland, Fremont cottonwood forest, narrow-leaved cattail marsh, two-tooth sedge seep, Baltic rush marsh, wild oat grassland, existing vineyard, ruderal, imported soils, and open water habitat. The project site contains wildlife exclusion fencing generally around the limits of the existing vineyard, as shown on the Track I ECPA's November 2020 Topographic Map and ECP Detail Figure (**Exhibit A-1**).

The project site is located approximately 1.1 mile south of the City of St. Helena, on the western foot slopes of Napa Valley. The project site is part of the Bale Slough watershed that flows into Napa River and San Pablo Bay. Bale Slough (an intermittent stream) transects the property from north to south and a number of ephemeral drainages on the project site flow into it.

General topography of the project site is a mix of steeply sloping terrain and gently-sloping ridgelines and knolls. Elevations range from approximately 200 to 700 feet above mean sea level (msl). The closest active fault to the project site in the West Napa Fault located approximately 10.8 miles southeast (Napa County GIS Faults Layer). The project site contains one active landslide within the southern portion of proposed Block O (PJG And Associates, December 2019; **Exhibit C-1**). Soils in the development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Montara clay loam, 5 to 30% slopes. The project site is underlain by ten soil mapping units: Boomer-Forward-Felta complex, 30 to 50% slopes; Forward silt loam, 3 to 26% slopes; Forward silt loam, 5 to 39% slopes; Forward silt loam, 12 to 57% slopes; Henneke gravelly loam, 30 to 75% slopes; Maxwell clay, 2 to 9% slopes; Montara clay loam, 5 to 30% slopes; Perkins gravelly loam, 5 to 9% slopes; Pleasanton loam, 0 to 2% slopes; and Pleasanton loam, 2 to 5% slopes. The project area consist exclusively of Montara clay loam, 5 to 30% (Soil Series #166)

Background

The project site has been developed with a vineyard and winery since the late 1800s. The open space areas in proposed Blocks M and O were previously developed as vineyard, but the vines were removed in the late 1990s/early 2000s and are, therefore, not eligible for Track II replanting.

Under previous ownership (Komes Ranch), the project originally included 16.4 gross acres of proposed vineyard (14.2 net acres). The current owner (SHL Cathiard LLC) reduced the proposed acreage to approximately 15.3 gross acres (approximately 13.1 net acres). As a result, the referenced technical reports refer to "Komes Ranch" and all reports were prepared to support the proposed project.

The proposed project originally included 16.4 gross acres of proposed vineyard (14.2 net acres), but has been reduced to the current proposal consisting of 15.3 gross acres (13.1 net acres) through the removal of then proposed Vineyard Blocks Q and R located in the southwest corner of the project site. The reduction was done in part to remove proposed vineyard areas located outside the project site's Water Right PLace of Use (POU).

The development area contains 2.99 acres (within portion of proposed Block O) of woodland/forested area that also is defined as commercial timberland by California Public Resource Code Section 4526 and the Z'Berg-Nejedly Forest Practice Act (**Exhibit B-4**). Because less than 3 acres of commercial timberland are proposed for conversion, it is anticipated that the proposed development of 2.99 acres of commercial timberland would qualify for a Less than 3-acre Conversion Exemption Permit pursuant to Section 1104.1 (Conversion Exemptions) of the California Code of Regulations with the California Department of Forestry and Fire Protection (CalFire) (discussed further in **Section II [Agriculture and Forestry Resources]**.

This application was submitted after the effective date of the Napa County Water Quality and Tree Protection Ordinance (WQTPO - Ordinance #1438, effective on May 9, 2019); therefore, processing and review of this application is subject to the County Conservations Regulations (NCC Chapter 18.108) as amended by the WQTPO.

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

Responsible (R) and Trustee (T) Agencies	**Other Agencies Contacted**
California Department of Fish and Wildlife (CDFW) (T)	Middletown Rancheria
Regional Water Quality Control Board (Regional Water Board) (R)	Mishewal Wappo Tribe of Alexander Valley
California Division of Water Rights (DWR) (T)	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 April 17, 2020. The County received a response letter from the Yocha Dehe Wintun Nation on April 30, 2020, indicating that that project area is not within the aboriginal territories of the Yocha Dehe Wintun Nation, and the reply stated that correspondence should be conducted with the Mishewal Wappo Tribe of Alexander Valley. On June 15, 2020, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation. The County also sent consultation closure notices to the Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria on June 15, 2020, because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitation was provided. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☒ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☒ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with ECPA #P20-00103-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559, or at https://pbes.cloud/index.php/s/99KAWoskwSLBQoB

- LincolnAE LCC, November 30, 2020, Revised Track I Erosion Control Plan, SHL Cathiard LLC Vineyard (P20-00103) (**Exhibit A-1**)
- Applied Civil Engineering Incorporated, April 2, 2021, Landslide Repair Site Improvement Plans (**Exhibit A-2**)
- Northwest Biosurvey, September 27, 2018 (Updated December 8, 2020), Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Komes Ranch (Cathiard) Vineyard Project, Accessor Parcel Number 027-100-037, 1978 Zinfandel Lane, St. Helena, California (**Exhibit B-1**)
- Northwest Biosurvey, December 2, 2020, April 17, 2020 Napa County Application Completeness Letter for Cathiard Komes Ranch Vineyard Application (**Exhibit B-2**)
- Forest Ecosystem Management, November 30, 2020, and June 23, 2021, Northern Spotted Owl Assessment, Cathiard Komes Ranch Vineyard Project (**Exhibit B-3**)
- Environmental Resource Management, March 13, 2019, Review of Komes Ranch, Definition of Commercial Timberland (**Exhibit B-4**)
- PJC & Associates, Inc., December 12, 2019, Stability Report and Landslide Repair, Proposed Vineyard, 1889 West Zinfandel Lane, St. Helena, California (**Exhibit C-1**)
- LincolnAE LLC, March 5, 2021, Soil Loss Analysis – Cathiard Vineyard, USLE Calculations (**Exhibit C-2**)
- LincolnAE LLC Agricultural Engineering, March 16, 2020, Water Availability Memorandum – SHL Cathiard LLC (**Exhibit D-1)**
- California State Water Resources Control Board, Division of Water Rights, March 4, 1997, Water Right Application 30597 (**Exhibit D-2**)
- California State Water Resources Control Board, Division of Water Rights, July 30, 1997, Water Right Permit 17297 (Application 24287) (**Exhibit D-3**)
- LincolnAE LCC, March 1, 2021, Revised Hydrology Report – SHL Cathiard LLC, WinTR55 Modeling (**Exhibit E**)
- Tom Origer & Associates, November 11, 2019, Cultural Resources Study for the Komes Ranch Project.
- Site inspection conducted by Napa County Planning Division staff (Don Barrella, Planner III), Engineering Department staff (Daniel Basore) and LincolnAE LLC staff (Sarah Pistone, SPESC #9225) on May 5, 2020.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. Attached as **Exhibit F** is the signed Project Revision Statement.

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

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

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

Signature

August 9, 2022
Date

Donald Barrella
Printed Name

Napa County Planning, Building and Environmental Services

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

Discussion

a-b. The project site is approximately 1 mile southwest of Highway 29, which is a Napa County-designated scenic roadway (Napa County GIS, Scenic Corridors Layer). However, the development area is not visible from Highway 29 or the surrounding area due to the topography and woodland between them. Additionally, visual impacts related to construction equipment and activities at the development area would be short-term and temporary in nature.

Existing vineyards are located within and surrounding the project site. As described in the Project Description and in **Section IV (Biological Resources)**, trees would be removed during project construction; however, the majority of the trees are not visible from public viewpoints and this would not result in damage to a scenic resource.

The project site is not located on a prominent hillside or a major or minor ridgeline (Napa County GIS, Ridgelines Layer) and there are no historic buildings on site. There are no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Therefore, for the reasons described above, the proposed project would have a less than significant impact on a scenic vista, scenic highway, historic buildings, scenic trees, or rock outcrops. Furthermore, the open space areas in Blocks M and O were previously developed as vineyard up to the early 2000s.

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

d. Proposed agricultural operations on the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring on the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September and October), that could include nighttime activity (typically from 10 p.m. to 6 a.m.). The proposed project would include sulfur applications (that typically occur from about 4a.m. to 6 a.m.) approximately eight times per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with surrounding land uses. Therefore, the proposed project would result in a less than significant impact.

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

Discussion

a. The California Department of Conservation's Important Farmland Finder identifies the project site as Prime Farmland, Unique Farmland, and Farmland of Local Importance. The proposed project would result in an increase in agricultural land; therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be no impact.

b. The project site has AWOS and AR General Plan designations and is zoned AP and AW. Therefore, the establishment of vineyard totaling approximately 15.3 gross acres (13.1 net acres) is consistent with project site's land use and zoning designations. The project site has a Williamson Act contract associated with it (Contract P06-01391-AGK, Instrument Number 2007-0039467, December 20, 2007). The proposed project would be consistent with the project's site land use and would not conflict with the Williamson Act contract because agriculture is allowed under both these land use designations and zoning districts, and under the terms of the contract. There would be no impact.

c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined in California Public Resource Code Section 4526 as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forests products, including Christmas Trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others."

CalFire enforces the laws that regulate logging on privately-owned lands in California. These laws are found in the Forest Practice Act which was enacted in 1973 to ensure that logging is done in a manner that will preserve and protect our fish, wildlife, forests and streams. Additional rules enacted by the State Board of Forestry and Fire Protection are also enforced to protect these resources. CalFire ensures that private landowners abide by these laws when harvesting trees. Although there are specific exemptions in some cases, compliance with the Forest Practice Act and Board rules apply to all commercial harvesting operations for landowners of small parcels, to ranchers owning hundreds of acres, and large timber companies with thousands of acres.

The Timber Harvesting Plan (THP) is the environmental review document submitted by landowners to CalFire outlining what timber is proposed for harvest, how it will be harvested, and the steps that will be taken to prevent damage to the environment. THPs are prepared by Registered Professional Foresters (RPFs) who are licensed to prepare these plans.

CalFire does not have the authority to deny a THP that is in compliance with state and federal rules and laws. A THP that does not comply with all forestry and environmental regulations is returned to the RPF. It is only approved after the RPF and landowner agree to make the changes necessary to ensure compliance with all laws. The environmental commitments included in the ECP application by the owner/applicant (i.e., erosion and runoff protection and control, preconstruction surveys, and sensitive species avoidance and protection measures) are intended to ensure compliance with applicable environmental regulations of the Forest Practice Rules.

When a timberland owner proposes to carry out a project that will result in timberland being converted to a non-timber growing use (in this case vineyard), they are also required to submit and secure a Timber Conversion Permit (TCP) in conjunction with the THP. The TCP exempts the timberland owner from the timber stocking requirements of the Forest Practice Rules.

The TCP is subject to the California Environmental Quality Act (CEQA) and is not covered by the functional equivalency of the Forest Practice Rules or THP process. Because the proposed project requires an Agricultural ECPA, Napa County is acting as the CEQA lead agency and preparing the environmental document for this project: CalFire may act on the THP/TCP by utilizing (or tiering) from the lead agency's final CEQA document or determination.

The development area contains 2.99 acres of woodland/forested areas within proposed Block O that qualifies as commercial timberland and would be subject to permit approval from CalFire (**Exhibit B-4**). The project site is not zoned forest land as defined in Public Resource Code Section 12220(g). Because less than 3 acres of commercial timberland are proposed for conversion, it is anticipated that proposed project (P20-00103-ECPA) would be subject to a Less than 3-acre THP/TCP Conversion Exemption Permit pursuant to Section 1104.1 (Conversion Exemptions) of the California Code of Regulations. The owner/applicant will pursue this exemption with CalFire should ECPA approval be issued by Napa County.

The proposed project would result in the conversion of 2.99 acres of commercial timberland to agricultural use. While this conversion would not result in a significant loss of timberland or timberland zoned Timberland Production, as disclosed in **Section IV (Biological Resources)** and **Section X (Hydrology and Water Quality)** with implementation of **Mitigation Measure HWQ-1** this area would be removed from the project.

Therefore, the proposed project, as designed, in conjunction with identified mitigation measures, would not significantly conflict with existing zoning for, or cause rezoning of, timberland (as defined in Public Resource Code Section 4526), or timberland zoned Timberland Production (as defined in Government Code Section 51104(g)) or result in significant loss of forest land or conversion of forest land to non-forest use. This impact would be less than significant, and with implementation of **Mitigation Measure HWQ-1** there would be no impact.

e. Other than the conversion of 2.99 acres of commercial timberland to agricultural use discussed in subsections c-d above, 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 impact on agricultural and forestry resources would be less than significant, and with implementation of **Mitigation Measure HWQ-1** there would be no impact.

		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[1]

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

On June 2, 2010, the Bay Area Air Quality Management District's (BAAQMD) Board of Directors unanimously adopted thresholds of significance to assist in the review of projects under the California Environmental Quality Act. These thresholds were designed to establish the level at which the Air District believed air pollution and greenhouse gas emissions would cause significant environmental impacts under CEQA. The thresholds were posted on the Air District's website and included in the Air District's updated CEQA Guidelines (updated May 2012). The thresholds are advisory and may be followed by local agencies at their own discretion.

The thresholds were challenged in court. Following litigation in the trial court, the court of appeal, and the California Supreme Court, all of the thresholds were upheld. However, in an opinion issued on December 17, 2015, the California Supreme Court held that CEQA does not generally require an analysis of the impacts of locating development in areas subject to environmental hazards unless the project would exacerbate existing environmental hazards. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA.

In view of the Supreme Court's opinion, local agencies may rely on thresholds designed to reflect the impact of locating development near areas of toxic air contamination where such an analysis is required by CEQA or where the agency has determined that such an analysis would assist in making a decision about the project. However, the thresholds are not mandatory and agencies should apply them only after determining that they reflect an appropriate measure of a project's impacts.

The Guidelines for implementation of the thresholds are for information purposes only to assist local agencies. Recommendations in the Guidelines are advisory and should be followed by local governments at their own discretion. These Guidelines may inform environmental review for development projects in the Bay Area, but do not commit local governments or the Air District to any specific course of regulatory action.

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.

In short, these thresholds of significance changes can be used by agencies as guidelines for determining climate impacts from projects subject to CEQA. However, agencies are not required to abide by these thresholds, as they are only guidelines.

a-b. The project site is generally located in the foothills along the western 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, and vehicular haul and worker trips. In the long term, potential air quality impacts would likely result from ongoing activities associated with the operation and maintenance of the proposed vineyard. Operational-related emissions, which are seasonal in nature, are primarily generated from vehicular trips associated with workers going to and from the site and equipment necessary for ongoing vineyard maintenance. 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 (2017). 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 $PM_{2.5}$).

These air pollutant thresholds of significance are identified in **Table 4** below.

BAAQMD has not officially recommended the use of its thresholds in CEQA analyses, and CEQA ultimately gives lead agencies the discretion to determine whether a particular environmental impact would be considered significant, as evidenced by scientific or other factual data. BAAQMD also 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

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

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 /construction and operations performed for three certified Environmental Impact Reports (EIR) in Napa County was completed: Suscol Mountain Vineyards[2] for an approximately 560-acre vineyard development, Walt Ranch Vineyard[3] for an approximately 507-acre vineyard development, and Circle-S Ranch Vineyards[4] for an approximately 400-acre vineyard development[5].

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 4 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Also shown in **Table 4** 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 4 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Criteria Pollutants – Constituents			
	ROG	NO_x	$PM_{2.5}$	PM_{10}
	Construction Emissions			
Pounds per day: 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 May 2017.

Because the proposed project's 15.3 gross acre vineyard (approximately 13.1 net-planted acres) is significantly smaller than any of the projects presented above, construction and operational emissions from the proposed project that could negatively affect air quality are expected to be less that those identified in **Table 4** and therefore below identified thresholds. Additionally, project approval, if granted, would be subject to the standard Air Quality Conditions of Approval described below, which includes standard air quality and construction best management practices (BMPs) consistent with BAAQMD measures identified in Table 8-2 of the BAAQMD CEQA Guidelines that would further reduce potential air quality impacts associated with construction and ongoing operation of the proposed project. These BMPs would be incorporated into the proposed project.

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

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

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

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

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 miles per hour (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[6] or the PERP website[7].

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

c-d. Land uses such as schools, playgrounds, child care 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 vineyard, wineries, rural residential, and undeveloped lands. The project site consists of approximately 203 acres of land and existing facilities include a winery and office buildings, vineyard, water storage ponds, and undeveloped lands. The closest schools are located approximately 1 mile north (St. Helena Primary School and St. Helena High School) within the City St. Helena (Napa County GIS, Schools Layer). The closest offsite residences are located approximately 1,000 feet northeast of the project site.

During installation of the ECP, 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, and ATV's). These sources would be temporary and/or seasonal in nature and would occur approximately 1 mile from the closest school and approximately 1,000 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:				
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	☐	☐	☒	☐

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

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

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

- Northwest Biosurvey, September 27, 2018 (Updated December 8, 2020), Biological Resource Assessment with Botanical and Bat Habitat Surveys, Woodland Assessment, and Delineation of Waters of the U.S. for the Komes Ranch (Cathiard) Vineyard Project, Accessor Parcel Number 027-100-037, 1978 Zinfandel Lane, St. Helena, California (**Exhibit B-1**)
- Northwest Biosurvey, December 2, 2020, RE: April 17, 2020 Napa County Application Completeness Letter for Cathiard Komes Ranch Vineyard Application (**Exhibit B-2**)
- Forest Ecosystem Management, November 30, 2020, and June 23, 2021, Northern Spotted Owl Assessment, Cathiard Komes Ranch Vineyard Project (**Exhibit B-3**)
- Environmental Resource Management, March 13, 2019, Review of Komes Ranch, Definition of Commercial Timberland (**Exhibit B-4**)

Northwest Biosurvey conducted an assessment of biological resources on the project site on May 16 (included a wetland delineation), June 4, and August 14, 2018. The surveys covered nine vineyard blocks totaling approximately 65 acres (the proposed development acreage was subsequently reduced to 15.3 gross acres with approximately 13.1 net planted acres) within the project site.

The surveys were completed to document: biological communities; existing conditions and to determine if suitable habitat to support special-status plant or wildlife species exists; bat habitat; aquatic natural communities; and any special-status species that may be present onsite. The survey dates corresponded to blooming periods sufficient to observe and identify special-status plant species determined to have the potential to occur in the project site. The field surveys were conducted by botanists familiar with the flora of Napa County and surrounding counties. The surveys followed the protocol for plant surveys described by resource agency guidelines (CNPS, 2001; CDFW, 2018; USFWS, 1996). Plants were identified using *A Manual of California Vegetation* (Sawyer et al., 2009) and *The Jepson Manual of Higher Plants of California* (Baldwin, et al, 2012) to the taxonomic level necessary to determine whether they were rare.

Forest Ecosystem Management also conducted surveys specifically for the presence of northern spotted owl (*Strix occidentalis caurina*) in the vicinity of the development area. Surveys for northern spotted owls were conducted at four survey locations (Attachment 4 in **Exhibit B-3**) in northern spotted owl-suitable habitats near the project site on March 3, April 1, April 22, May 4, May 16, 2019; on March 3, March 17, April 9, April 22, May 11, and June 4, 2020; and on March 17, March 30, March 31, and April 21, 2021.

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 California Natural Diversity Database (CNDDB) and RareFind 5 databases, California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS, 2018), California Wildlife habitat Relationships System (Version 9.0), and the Napa County *Baseline Data Report* (Napa County, 2005) that may be affected by projects in the Rutherford, Calistoga, Chiles Valley, Glen Ellen, Kenwood, Napa, Sonoma, St. Helena, and Yountville 7.5- minute topographic quadrangles.

The project site consists of the following biological communities (or habitat types): Douglas fir forest, mixed oak woodland, ghost pine forest, blue oak woodland, Fremont cottonwood forest, narrow-leaved cattail marsh, two-tooth sedge seep, Baltic rush marsh, wild oat grassland, vineyard, ruderal, imported soils, and open water habitat. Oak woodland and marsh (wetlands) are considered sensitive habitat types; Douglas fir and pine forests are not considered sensitive habitats. The habitats and their acreages are shown in **Table 5**. These habitats were mapped according to the definitions in the CNPS *Manual of California Vegetation*. According to these definitions, five different woodland and forest types were mapped: Douglas fir forest, mixed oak woodland, ghost pine forest, blue oak woodland, and Fremont cottonwood forest. These vegetation classifications do not directly correspond to a community's commercial definition regarding its value as "timberland" (i.e., a woodland may or may not also meet the definition of a commercial timberland depending on the assessment of a forester). The purpose of establishing a forest or

woodland's status as timberland is to determine its timber harvest status in the CalFire permitting process; that process and the 2.99 acres of the woodland in proposed Block O that qualifies as timberland as discussed in **Section II (Agriculture and Forestry Resources)**.

Table 5 – Biological Communities and Habitat Types on the Project Site

Biological Communities or Habitat Type	Approximate Pre-Project Conditions (acres)
Douglas Fir Forest	25.71
Mixed Oak Woodland	58.73
Ghost Pine Forest	2.20
Blue Oak Woodland	5.46
Fremont Cottonwood Forest	0.23
Narrow-leaved Cattail Marsh	0.39
Two-tooth Sedge Seep	2.54
Baltic Rush Marsh	0.18
Wild Oat Grassland	15.12
Vineyard	68.91
Ruderal	19.27
Imported Soils	1.03
Open Water Habitat	3.23
Total	**203.00**

Source: Northwest Biosurvey, December 2020 (**Exhibit B-1**)

a. Special-Status Plants: Based upon a review of the resource databases listed in **Exhibit B-1**, 14 special-status plant species have the potential to occur in the plant communities identified in the project site and 13 have been documented in the same topographic quadrangle as the project site (i.e., Rutherford), all of which have the potential to occur in the project site. Results of the plant survey identified 94 native and non-native plants and determined no special-status plant species are present within the development area (**Exhibit B-1**).

The proposed project does not include 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[8] because it would maintain 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[9] as it protects the continued presence of special-status plant species or its habitat; Policy CON-13[10] in that impacts to special-status habitat can be avoided while allowing for up to approximately 12.3 acres of agriculture on the project site; Policy CON-17[11] because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affects sensitive, rare, threatened or endangered plants. Therefore, the proposed project would have no impact on special-status plant species.

Special-Status Animals: A total of 14 special-status animals could occur within the area of the project site. Of these, six special-species have a moderate or high potential to occur within the project site: Swainson's hawk (*Buteo swainsoni*), Lawrence's gold finch (*Carduelis lawrencei*), Lewis' woodpecker (*Melanerpes lewis*), loggerhead shrike (*Lanius ludovicianus*), pallid bat (*Antrozous pallidus*), and western pond turtle (*Emys marmorata*). Additionally, a variety of native bird species with protections under the Migratory Bird Treaty Act and California Fish and Game Code may use vegetation within the development area for nesting. Further, as discussed in **Section II (Agriculture and Forestry Resources)**, approximately 2.99 acres of the woodland in proposed Block O qualifies as timberland and considered as potential northern spotted owl (NOS) habitat; therefore, protocol-level surveys are required by CalFire prior to conversion of that acreage; see discussed below.

Swainson's hawk is known locally mostly in the central valley. Habitat is scattered large trees in open areas. Preferred nesting habitat is open riparian habitat or small groves of trees near sparsely vegetated flatlands. They usually roost in stick nests in large trees, although the hawk will also roost on the ground if no trees are available. Swainson's hawks forage in adjacent grasslands, grazing pastures, or agricultural fields, and their diet ranges from insects to small birds and mammals. They will soar at high and low elevations in search of

[8] Goal CON-2: Maintain and enhance the existing level of biodiversity.
[9] 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.
[10] 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.
[11] 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.

prey, which is caught in flight, but they may also walk on the ground in search of invertebrates. No hawks were seen during the site visits, but they may be present in the vicinity.

Lawrence's gold finch are passerine (perching birds) bird that prefer to nest in the dense foliage of oaks in dry open woodland near brushy and grassy areas or chaparral. Proximity to water is important. Their diet consists primarily of seeds but includes some insects. They frequently nest near other pairs during a breeding season that extends from late March through July, with birds migrating south in August. There is nesting and foraging habitat for this bird in the oak woodlands and grasslands within the project site.

Lewis' woodpecker excavate nest cavities in dead trees and dead limbs of live trees in open woodlands. They hunt insects and eat fruits and berries throughout the spring and summer and shift their diet to cached acorns and emerging insects in the fall and winter. Breeding occurs between early May and July. The diverse woodland habitats in the project site provide potentially good habitat for the woodpecker.

Loggerhead shrike is considered a sensitive species by the County of Napa. These passerines prefer open-canopied woodlands with grass groundcover, and grazed open pastures. Preferred habitats include valley-foothill woodlands and riparian. They build well-concealed nests in the dense foliage of oaks and shrubs. They eat large insects but are fairly unique for passerines in that they also eat small amphibians, reptiles, birds, and mammals which they may impale on thorns or barbed wire fences. Shrikes use fence posts or shrubs as observation posts. Nesting occurs between March and early July when the young are fully fledged. Potential habitat for this species may be found in the mix of grassland and woodlands in the project site.

Pallid bats prefer open, dry habitats with rocky areas, but the bats are also found in oak savanna grasslands, and in open forest and woodlands with access to riparian and open water for feeding and drinking in northern California. Foraging occurs over open country. These bats prefer the cool summer temperatures of caves, crevices, and mines as roosting sites where they are known to wedge themselves into small spaces; they will also roost in buildings, bridges, and hollow trees. Preferred roosts are high above the ground and inaccessible to terrestrial predators, although they are occasionally found roosting on the ground underneath sacks and other items left by humans. No evidence of bats was found during the field surveys; however, the diverse woodlands and ponds provide good potential habitat for this species and bats may be present in the future.

Western pond turtles (WPT) prefer slow or ponded water with sheltering vegetation but will range widely through less suitable habitat in search of these sites. Stream channels are often used as movement corridors between waterways or ponds. Eggs are laid on land in sheltered nests. Young overwinter in the nest and emerge the following spring in Northern California. Food includes aquatic insects, crustaceans, fish, and riparian vegetation. When present, pond turtles are readily observed basking along shorelines or on logs in shallow water. There are three ponds located on project site and turtles may have the potential be present.

Northern spotted owl (NSO) habitat includes forest with dense, multi-layered canopy of several tree species and trees of varying sizes and ages. Habitat should include abundant logs, snags/cavity trees, and trees with broken tops or platform-like substrates (i.e. broken tops, mistletoe, debris piles, or old raptor/squirrel nests). Northern spotted owl also prefer forests with open spaces among lower branches to allow flight under the canopy. Proposed Block M is 2.3 acres of open area and is not suitable northern spotted owl habitat due to lack of trees. Proposed Block O includes 9.91 acres of grassland and 2.99 acres of woodland/timberland. The grassland has a few scattered trees; however, is not suitable northern spotted owl habitat due to lack of canopy cover. The project site's timbered area, combined with the adjacent forest, provides the necessary stand structure of suitable nesting/roosting habitat; however, it is primarily surrounded by unsuitable northern spotted owl habitat (vineyards, residential, commercial vineyards, shrubland), therefore, would potentially only serve as foraging habitat and not support a resident northern spotted owl. The development area is considered to contain low quality northern spotted owl habitat. There are no known recordings of northern spotted owls within 1.3 miles of the project site; the 1.3-mile assessment area was created by U.S. Fish and Wildlife Service (USFWS) for a Take Avoidance of NSO within the California Interior (outside the coastal redwood zone).

The above described special-status bird species were not observed during the reconnaissance-level biological survey; however, only surveys specifically for northern spotted owl were performed (**Exhibit B-3**). No northern spotted owls were detected during the protocol-level surveys in 2019, 2020, or 2021; the surveys are valid until the next breeding season, which starts in February 2022. In addition, migratory birds and raptors have the potential to nest within the trees throughout and adjacent to the development area. Tree removal and temporary and intermittent increases in noise levels may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. Potential direct and indirect impacts to special-status and protected bird species would be significant.

To reduce potentially direct and indirect significant impacts to special-status and protected bird species as a result of the project to a less than significant level, **Mitigation Measures BR-1** would be implemented. This measure would include pre-construction bird surveys and measures to avoid any nests with an exclusion buffer if present. Regarding the northern spotted owl, with implementation of **Mitigation Measure HWQ-1** the 2.99 acre of woodland/timberland proposed for vineyard conversion would be avoided and removed from the project, which would reduce potential impacts to the NSO and its habitat to a less than significant level. Additionally, this mitigation would eliminate the need to conduct further surveys for northern spotted owls.

Mitigation Measure BR-1: The owner/permittee shall revise Erosion Control Plan #P20-00103-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status and nesting birds and raptors consistent with and pursuant to California Fish and Game Code Sections 3503 and 3503.5:

a. For earth-disturbing activities occurring between February 1 and August 31 (which coincides with the grading season of April 1 through October 15 – NCC Section 18.108.070.L, and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat on the project site, and where there is potential for impacts adjacent to the project areas (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than seven (7) days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than seven (7) days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Conservation Division and the CDFW prior to commencement of work.
b. After commencement of work if there is a period of no work activity of seven (7) days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the USFWS and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged or nest(s) are otherwise determined inactive by a qualified biologist.
e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited.

No evidence of bats was found during the field surveys; however, potential habitat for pallid bats in the development area includes hollow trees, trees with open cavities, and trees with exfoliating bark (Northwest Biosurvey, December 2020 - **Exhibit B-1**). Impact to special-status bat species during removal of the 2.99 acres of woodland/forest containing approximately 386 trees during project construction would be a significant impact. As noted, there is potential for bat habitat to exist on the subject parcel and in the project area, however, the Biological report did not conduct a survey to determine where bat habitat trees are located. Given this lack of data, it is not possible to fully assess the extent of bat habitat within the subject parcel and as such the entire forested habitat acreages are considered as potential bat habitat. Removal of any forested habitat could be a potentially significant impact. However, with implementation of **Mitigation Measure HWQ-1** the 2.99 acre of woodland proposed for vineyard conversion would be avoided and removed from the project, which would reduce potential impacts to special-status bat species and their habitat to a less than significant level.

Regarding the WPT, while there are reservoirs within the project parcel the project would not affect them, and the closest reservoir is approximately 300 feet from the project area. Therefore, the proposed project would not have a significant impact on WPT or its habitat.

b-c. Seasonal wetlands and marshes are known from a variety of topographic positions and soil types where surface waters collect and flows are reduced, or subsurface waters approach the soil surface as a rising water table or seep. The approximately 2.68 acres of wetland/marsh on the project site are located outside the development area. The wetland/marsh areas have been avoided and provided with a minimum 50-foot buffer; therefore, impacts to seasonal wetlands would be less than significant.

The project site contains one primary, intermittent stream and a number of ephemeral drainages that flow into it (shown in Figure 3 in **Exhibit B-1**; Northwest Biosurvey - December 2020). The main intermittent stream is Bale Slough, a dashed blue-line stream on the Rutherford 7.5-minute topographic quadrangle (USGS, 2015). On the project site, the drainage consists of an excavated ditch between vineyard blocks that flows from the northwest and exits on the southeastern edge of the project site, where it flows into the Napa River approximately 2 miles downstream (Northwest Biosurvey, December 2020 - **Exhibit B-1**).

The streams on the project site are considered sensitive natural resources. The intermittent drainage meets the Napa County definition of a stream because it is a USGS blue-line stream and the ephemeral drainages do not meet the County's definition of a stream pursuant to NCC 18.108.025. The proposed development area is not located near the intermittent drainage, and the proposed project has been designed to avoid the streams that do not meet the Napa County definition of a stream with a minimum 35-foot setback in accordance with NCC 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 significant impacts to these drainages or 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.

d. The proposed project involves the installation of two vineyard blocks totaling approximately 15.3 gross acres (13.1 net acres) across a portion of one parcel comprising the project site. The project site has existing wildlife exclusion fencing located in the area of the proposed vineyard blocks. The proposed project would install wildlife exclusion fencing individually around Blocks O and M and connect with the existing fencing within the project site (**Exhibit A-1**). The proposed fencing would only marginally extend the existing project site fencing to the north and east.

The project site is not located within a mapped wildlife corridor identified in the Napa County Baseline Data Report. For local diurnal movement (daily movement between sources of food, cover, and water), wildlife generally follow stream courses when moving up and down slopes and use adjacent habitats (often preferring woodlands) for cover, browse, or hunting. The actual width of usable corridors would continually change based on the density of vegetation, steepness of adjacent slopes or presence of unsuitable habitat such as fenced vineyards and residential areas. Due primarily to the steepness of the slopes in this segment of the Mayacamas Range, the majority of the forests and woodland here remain somewhat undisturbed by agricultural and residential development. While the proposed vineyard blocks would result in portions of the site having reduced potential for on-site wildlife use and movement, the preservation/avoidance of streams within the project site, as well as the condition of the surrounding lands, would continue to allow for movement through the vicinity. The proposed wildlife exclusion fencing would not interfere substantially with wildlife movement and impacts are expected to be less than significant. Furthermore, with the implantation of **Mitigation Measure HWQ-1** the proposed fencing located along the southeast portion of Vineyard Block O would not need to be extended.

Furthermore, to ensure that wildlife exclusion fencing is installed in a manner consistent with CDFW recommendations the following condition of approval would be incorporated should the proposed project be approved.

> **Fencing – Condition of Approval:** The owner/permittee shall revise Erosion Control Plan #P20-00103-ECPA prior to its approval to include an updated Vineyard Fencing Plan). The Vineyard Fencing Plan shall be submitted to the Planning Department for review and approval prior to its incorporation into #P20-00103-ECPA, and include the following components:
> - New fencing shall use a design that has 6-inch square gaps at the base (instead of the typical 3-inch by 6-inch rectangular openings) to allow small mammals to move through the fence.
> - Exit gates shall be installed at the corners of wildlife exclusion fencing to allow trapped wildlife to escape. Smooth wire instead of barbed wire shall be utilized to top wildlife exclusion fencing to prevent entanglement.
> - Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P20-00103-ECPA pursuant to the Vineyard Fencing Plan required by this condition shall be strictly prohibited, and would require County review and approval to ensure the modified wildlife exclusion fencing location/plan would not result in potential impacts to wildlife movement.

Because wildlife nursery sites were not identified in the project site or project areas, there would be no impacts to wildlife nursery sites.

e. Based on the biological resources surveys, the project site contains a total of 64.19 acres of mixed oak woodland and blue oak woodland. The proposed project would result in the removal of 2.99 acres of oak woodland. However, with implementation of **Mitigation Measure HWQ-1** this woodland would be avoided, resulting in no oak woodland/forest or cover canopy removal.

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

Implementation of **Mitigation MeasureHWQ-1** would also result in compliance with Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements), which requires that parcels within the AW zoning district retain 70% of the vegetation canopy cover[12] based on the on-site canopy present on June 16, 2016, by retaining 100% of the oak woodland cover canopy. To ensure that adjacent woodlands are not inadvertently affected the following condition of approval will be implemented, should he project be approved.

> **Oak woodland protection – Condition:** The owner/permittee, prior to approval, shall revise #P20-00103-ECPA to include the following provisions to reduce potential impacts to oak woodland and associated vegetation cover canopy, and to achieve consistency with the Napa County Conservation Regulations 18.108:
> a. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the development area (typically within approximately 50-feet of the development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the

[12] Napa County Code Section 18.108.030 defines "vegetation canopy cover" as "the biotic communities classified as oak woodland, riparian oak woodland, or coniferous forest based on the current Manual of California Vegetation (MCV) and as described in the Napa County Baseline Data Report (2005 or as amended)."

commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.

b. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the vineyard conversion area.

c. 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 #P20-00103-ECPA shall be replaced on-site with fifteen-gallon trees at a ratio of 2:1 at locations approved by the planning director. A replacement plan shall be prepared for county review and approval that includes at a minimum, the locations where replacement trees will be planted, success criteria of at least 80%, and monitoring activities for the replacement trees. The replacement plan shall be implemented before vineyard planting activities. Any replaced trees shall be monitored for at least three years to ensure an 80% survival rate. Replacement trees shall be installed and documented that they are in good health prior to completion and finalization of the erosion control plan.

Additionally, as discussed in questions a through c above, the proposed project is designed to incorporate mitigation measures and conditions of approval, impacts to sensitive natural communities and special-status species would be less than significant. Therefore, the proposed project with conditions incorporated is consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108.

with the implementation of **Mitigation Measure HWQ-1**, which would result in avoidance of all the sites oak woodland and associated vegetation cover canopy, would reduce potential impacts to the oak woodland biological community to a less than significant level, and result in compliance with Napa County General Plan Conservation Element Policy CON-24.

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:

- Tom Origer & Associates, November 11, 2019, Cultural Resources Study for the Komes Ranch Project, 1889 W. Zinfandel Lane, St. Helena, Napa County, California.

Tom Origer & Associates conducted a cultural resources study for the project site which included archival research at the Northwest Information Center, Sonoma State University, 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 structure; and a surface reconnaissance survey of the development area (16.3 acres total surveyed), and Native American consultation.

a-b. The cultural resources study (Tom Origer & Associates, November 2019) identified no cultural resources within the development area.

Although no cultural resources were found within the development area, there is the possibility that buried archaeological deposits could be present and accidental discovery could occur. Therefore, the proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidently.

c. The cultural resources study did not locate any human remains in the proposed development area and does not anticipate the discovery of human remains due to implementation of the proposed project. Therefore, impacts on human remains are anticipated to be less than significant. Furthermore, the following conditions of approval would be incorporated should the proposed project be approved, which would ensure that potential impacts on human remains would be less than significant.

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

- **i.** In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable solids, glass, metal, ceramics, wood or similar debris, be discovered during grading, trenching or other onsite excavation(s), earth work within 100-feet of these materials shall be stopped until a professional archaeologist certified by the Registry of Professional Archaeologists has had an opportunity to evaluate the significance of the find and suggest appropriate mitigation(s), as determined necessary.
- **ii.** 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.
- **iii.** 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 in two phases lasting up to six months each year. Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual project characteristics that would cause the use of construction equipment or haul vehicles that would be less energy efficient when compared with other similar agricultural construction sites within Napa County.

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

b. The transportation sector is a major end-user of energy in California, accounting for approximately 28% of total statewide energy consumption in 2019 (U.S. Energy Information Administration 2020). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million vehicles consume more than 16 billion gallons of gasoline and more than 3 billion gallons of diesel each year, making California the second largest consumer of gasoline in the world (CEC 2016). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County 2018 - https://www.countyofnapa.org/DocumentCenter/View/9247/Revised-Draft-Climate-Action-Plan).

With respect to transportation energy, existing energy standards are promulgated through the regulation of fuel refineries and products such as the Low Carbon Fuel Standard (LCFS), which mandated a 10% reduction in the non-biogenic carbon content of vehicle fuels by 2020. Additionally, there are other regulatory programs with emissions and fuel efficiency standards established by United States Environmental Protection Agency and the California ARB such as Pavley II/LEV III from California's Advanced Clean Cars Program and the Heavy-Duty (Tractor-Trailer) GHG Regulation. Further, construction sites will need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation.[13] The proposed project would comply with these State requirements and the Air Quality conditions of approval presented in **Section III (Air Quality)**. Napa County has not implemented an energy action plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets, and impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
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?	☐	☐	☒	X☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
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 project area is underlain by a dormant Quaternary landslide deposit, and a local active landslide is documented within the southeastern portion of proposed Block O. A Stability Report and Landslide Repair Report was conducted by PJC & Associates which included repair specifications for the landslide (**Exhibit C-1**). The report concluded that the land is suitable for vineyard development as proposed provided that the landslide is properly repaired. Landslide Repair Site Improvement Plans were prepared by Applied Incorporated (**Exhibit A-2)**. Grading for the landslide repair would require disturbance of approximately 2 acres (approximately 40,000 cubic yards of cut and fill).

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

The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development, but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.

i) The project site is not located on an active fault or within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The closest active fault to the project site is the West Napa Fault located approximately 10.8 miles southeast of the project site (Napa County GIS faults and earthquake layers). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.

ii) Although the project site is located in an area that may be subject to 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 located 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) As discussed above, a landslide is documented in the southeastern portion of proposed Block O that encompasses an area of approximately 1 acre (overall all . As described in the Stability Report and Landslide Repair Recommendations (**Exhibit C-1),** the landslide consists of a translation block landslide which occurred due to the presence of weak clayey materials, slippery serpentinite bedrock, and poor surface and subsurface drainage conditions. These factors, coupled with the concave topography, were the primary causes of the landslide. Repair specifications were identified through the following: surficial reconnaissance to observe topography, surface soils creep, and landslide areas by a certified engineering geologist; subsurface exploration at five test pits; geologic mapping; laboratory testing to evaluate the site soils and bedrock; review of published geologic literature and aerial photographs; and engineering analysis based on data obtained from the exploration and testing program.

The Landslide Repair Site Improvement Plans prepared by Applied Civil Engineering (**Exhibit A-2)** specify that the earthwork requirements would be in accordance with the recommendations in the project's Stability and Landslide Repair Report (**Exhibit C-1**) To ensure these specifications are implemented the project will be subject to the following conditions of approval, should the project be approved.

Condition of Approval – Landslide Repair Earthwork and Grading:

a. Stripping: The landslide area shall be stripped of loose ruptured debris, surface vegetation, roots and upper few inches of soil contain organic matter. These materials shall be moved off site. If any underground utilities pass through the slide area, it is recommended that the utilities be removed and rerouted. Voids generated from the removal of utilities or other obstructions shall be replaced with compacted engineered fill under the observation of the project geotechnical engineer.

b. Benching and Keying:

i. The loose debris and any weak material shall be removed from the landslide mass. A keyway shall be excavated at the toe of the landslide mass and observations shall be provided by the geotechnical engineer to determine where the keyway should be located. All keys shall be a minimum of 10 feet in width and extend at least five feet into competent bedrock or firm residual soil as measured on the downhill side. The materials excavated during keying and benching could be used as structural fill if they conform to the requirements indicated under "Excavation and Compaction". Subdrains shall be installed in keyway. Following completion of the keyway, in-sloping benches shall be excavated through the landslide plane, and extend above the head of the landslide mass.

ii. A subdrain shall be installed along the rear of the keyway. Subdrains would also be required on the benches, as determined in the field during construction. Subdrains shall be anticipated on benches every 20 vertical feet or where subsurface seepage is encountered. The subdrains shall consist of a one-inch diameter SDR-35 perforated heavy-walled plastic pipe. The pipe shall be covered by a two-foot wide layer of Class II permeable material that extends up the upslope wall of the keyway excavation. Clean-out risers shall be provided for all keyway and benching subdrains. The perforated pipe shall outlet into a solid line that discharges onto an approved erosion resistant area down slope from the repair area.

c. Excavation and Compaction:

i. The bottom of the keyway shall be scarified to a depth of eight inches; moisture conditioned within two percent of the optimum moisture content and compacted to a minimum of 90% of the maximum dry density of the materials, as determined by the ASTM D 1557-09 laboratory compact test procedures.

ii. The excavated fill, landslide debris and native soils, free of organics and rocks larger than four inches in size could be reused as engineered fill if approved by the geotechnical engineer in the field. The fill material shall be spread in eight-inch thick loos lifts; moisture conditions within two percent of the optimum moisture content, and compacted to at least 90 percent of the maximum dry density of the materials. Imported fill, if needed, shall be evaluated and approved by the geotechnical engineer before importation.

iii. As the keyway is being filled, level benches at least 10 feet wide, shall be constructed as the fill continues upslope. The benches shall be excavated into bedrock or firm residual soil as determined by the geotechnical engineer. The geotechnical engineer shall be consulted on the location of the subdrains. The benches may be filled with on-site approved soils placed in thin lifts, moisture continued to two to four percent over the optimum moisture content and compacted to at least 90% of the materials maximum dry density.

d. Temporary Cut Slopes: Depending on conditions encountered in the field during grading, temporary cut slopes could be considered acceptable during construction. The geotechnical engineer shall observe the excavation and determine if temporary cut slopes are acceptable. Temporary cut slopes shall not exceed one-half horizontal to one vertical (0.5H:1V). However, during construction, 0.5H:1V cut slopes may be considered unacceptable depending on conditions encountered. The geotechnical engineer shall observe the excavation to determine if 0.5H:1V cut slopes are acceptable during construction. Depending on conditions encountered during construction, benching and terracing would likely be necessary. Temporary cut slopes shall not be left exposed longer than absolutely necessary. If the slopes are allowed to dry out, they will likely lose strength and be prone to failures.

e. Cut and Fill Slopes: Fill slopes shall be constructed at an inclination not steeper than 2H:1V. Any cut slopes steeper than 2J:1V may become unstable under saturated and seismic conditions. If potentially unstable subsurface conditions, such as adverse bedding, joint planes, zones of weakness, weak clay zones, or exposed seepage are encountered, it may be necessary to flatten slopes or provide other treatment. A geotechnical engineer shall observe the cut slopes and provide final recommendations for the control of adverse conditions during grading operations, if encountered. During the rainy season, the cut slopes shall be treated as needed in order to minimize the possibility of slumping and erosion.

f. Erosion Control: To minimize the probability of slumping and/or erosion of fill slopes, the faces of the slopes should be properly treated. The slopes shall be constructed at least 2 feet (horizontally) beyond the planned final face plane using proper compaction equipment and be compacted to a minimum of 90% relative compaction. The slope face shall then be trimmed back to the final face plane. This operation shall expose properly compacted material on the finished face of the slope. Disturbed slopes shall be planted or seeded with deep-rooter ground cover and covered with straw matting to prevent erosion. Surface drainage shall be directed aware from cut and fill slopes. The exterior slopes shall be protected from erosion as determined by the project civil engineer.

g. A representative of PJC & Associates shall observe all site preparation and fill placement (i.e., stripping, grading, and scarification processes) to observe whether any undesirable material is encountered in the construction area.

h. Drainage Control:

i. Surface Drainage: Drainage control design shall include provisions for positive surface gradients so that surface runoff is not permitted to pond, particularly above the repaired slope. Surface runoff should be directed away from the repaired slope and collected in ditches or drainage swales as necessary. Pipes should be discharged away from slopes and onto erosion resistant areas.

ii. Keyway and Bench Subdrains: The keyway and bench subdrains construction specifications are included in the grading section discussed above.

No other landslides have been identified within the development area (Napa County GIS, Landslide Layers) and therefore, with implementation of the recommendations in the Stability Report (**Exhibit C-1**) listed above, impacts would less than significant (also see question c below for additional discussion regarding slope stability and landslides).

b. The project site is underlain by ten soil mapping units: Boomer-Forward-Felta complex, 30 to 50% slopes; Forward silt loam, 3 to 26% slopes; Forward silt loam, 5 to 39% slopes; Forward silt loam, 12 to 57% slopes; Henneke gravelly loam, 30 to 75% slopes; Maxwell clay, 2 to 9% slopes; Montara clay loam, 5 to 30% slopes; Perkins gravelly loam, 5 to 9% slopes; Pleasanton loam, 0 to 2% slopes; and Pleasanton loam, 2 to 5% slopes. The soil type within the development area is Montara clay loam, 5 to 30% slopes. Installation and implementation of the ECPA 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 cover crops with vegetative cover densities of at least 80% as specified in the ECP. For the first three years, the cover crop may be disked or otherwise cultivated after April 1; after the three years a no-till cover crop would be established. 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 LincolnAE LLC (**Exhibit C-2**), the proposed conversion of approximately 15.3 acres of woodland, rangeland, and brush to vineyard and vineyard avenues is anticipated to reduce soil loss, or surface erosion, within the project site as compared to existing conditions (**Table 7**). Under existing conditions, the annual soil loss is anticipated to average 20.08 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 10.15 tons per acre per year, or a reduction of approximately 49% as compared to existing conditions.

Table 7 – USLE Soil Loss Analysis

Vineyard Block	Pre-project Soil Loss (tons/year)	Post-project Soil Loss (tons/year)	Difference	Percent Change (approximate)
M	2.26	1.62	0.64	-28%
O	17.82	8.53	9.29	-52%
Total	**20.08**	**10.15**	**9.93**	**-49%**

Source: LincolnAE LLC, March 5, 2021, Soil Loss Analysis (**Exhibit C-2**)

Other proposed erosion control features that are anticipated to further reduce potential soil loss as a result of the proposed project, including soil loss experienced during vineyard and cover crop development and establishment, consist of rolling dips, diversion ditches, drainage improvements, landslide repair, fiber rolls, silt fences, rock benches, and permanent no-till cover, straw mulching, other practices as needed.

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

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval:
The following conditions shall be incorporated by referenced into Erosion Control Plan #P20-00103-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

i. Permanent Erosion and Runoff Control Measures: Pursuant to NCC Section 18.108.070(L) installation of runoff and sediment attenuation devices and hydromodification facilities including, but not limited to, rolling dips, diversion ditches, drainage improvements, landslide repair, fiber rolls, silt fence, rock benches, and permanent no-till cover crop (or adequate mulch cover applied annually), shall be installed no later than October 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan #P20-000103-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have be installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.

ii. Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no-till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of 80% within the Blocks O and M, and the associated vineyard avenues. Cover crop may be disked between rows and sprayed under vines or otherwise cultivated after April 1; after three years a permanent, no-till cover shall be established. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

It is not expected that land preparation activities associated with the proposed vineyard, such as removal of rocks from the soil profile, would substantially affect the USLE modeling results. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and movement of soil particles. The primary goal of cultivating the soils within the development area during implementation is to prepare the site for planting, including fracturing and mixing layers of compressed soil and rock to facilitate root growth and improve permeability, rather than to remove all the rock within the development area soils. Soil cultivation may result in a greater number of smaller rocks at the soil surface. Smaller rocks that emerge through development would be left within the vineyard, and only larger rocks that surface would be removed. Because the larger rocks that may be removed from the site are generally underneath the soil surface, the removal of larger rocks that emerge during development would not significantly alter the composition of soil. Therefore, the soil type classification utilized in the USLE calculations would remain unchanged (Oster, 2008).

For these reasons, the proposed project, with incorporation of specified erosion control measures and conditions of approval, would not increase soil erosion and the loss of topsoil as compared to existing conditions, and maximize the potential for containment of detached soil particles to the project site, resulting in 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 development area contains one active landslide in the southern margin of Block O that would be repaired as part of the proposed project conditions of approval. The project area is also underlain by a dormant Quaternary landslide deposit but the proposed project would not have an effect on the landslide deposit. The project site is not in an area prone to other ground failure or liquefaction. The proposed project identifies the soil types in the project area and addresses any potential soil instability. Therefore, the proposed project would not result in any significant impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse.

d. Soils within the development area consist of Montara clay loam which exhibit moderate shrink-swell potential (USDA, 1978). The Napa County Soil Survey describes the Montara series as well-drained soils on uplands derived from weathered serpentine with run-off that may be rapid with moderate hazard of erosion. No structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be no impacts associated with expansive soils.

e. The proposed project involves the development of a vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed at the project site. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.

f. The proposed project would not destroy any unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geologic features and paleontological resources are anticipated to be less than significant.

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

i. 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.

ii. 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[13]. The proposed thresholds to evaluate GHG and climate impacts from land use projects are qualitative, therefore there is no bright-line (quantitative) level to mitigate below. Projects that decline to integrate qualitative design elements can alternatively demonstrate consistency with a local Greenhouse Gas (GHG) Reduction Strategy that meets the criteria of the State CEQA Guidelines section 15183.5(b).

There is no proposed 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.

[13] Microsoft Word - FINAL CEQA Thresholds Report for Climate Impacts 03_30_22 revisions with tracked changes (baaqmd.gov): https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en

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

On July 24, 2018, the County prepared a Notice of Preparation of a Draft Focused EIR for the Climate Action Plan. The review period was from July 24, 2018, through August 22, 2018. The Draft Focused EIR for the CAP was published May 9, 2019. Additional information on the County CAP can be obtained at the Napa County Department of Planning, Building and Environmental Services or online at https://www.countyofnapa.org/589/Planning-Building-Environmental-Services. The County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

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.

The County maintains a set of Transportation Impact Study Guidelines (TIS Guidelines) 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).[14]

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.

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

"Operational Emissions" of the vineyard are 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 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.[15] Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed 15.3 gross acres of vineyard development would be approximately 143.8 MT CO_{2e} (15.3 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 15.3 acres of existing 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 GHG Emissions Checklist and associated carbon stock factors developed as part of the 2012 Draft CAP efforts are utilized to determine potential project

[14] "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).

[15] 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.

site carbon stocks and emissions. Utilizing the 2012 Draft CAP carbon stocks and the acreages of vegetation types within the development area, total carbon stocks for the development area are estimated to be approximately 433.25 MT C or approximately 1,106.9 MT CO_{2e} (**Table 8**). **Note:** this GHG assessment utilizes the more conservative carbon stock and storage factors of oak woodland (as identified in the Biological Resources Report – Exhibit B-1) rather than coniferous forest, even though the woodland has been determined to be commercial timberland (**Exhibit B-3**)

Table 8 – Estimated Development Area Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Storage/Stock per Acre (MT C/acre)	Total Carbon Storage (MT)	Total Carbon Storage in MT CO2e
Grassland	12.31	1.4	17.2	63.1
Oak Woodland	2.99	95.1	284.4	1,043.8
Total			**301.6**	**1,106.9**

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

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 to 25% while others have suggested 50%.[16] Using 50% as a more conservative estimate, the proposed project could result in one-time development area construction emissions from vegetation removal and soil preparation (i.e., grading and soil ripping) of approximately 1,019.5 MT CO_{2e} (**Table 9**).

Table 9 – Estimated Project Carbon Emissions Due to Vegetation Removal

Vegetation Type/Carbon Storage	Development Area Acreage	Carbon Loss/Emission per Acre (MT C/acre)[1]	Total Carbon Loss/Emission (MT)	Total Carbon Loss/Emission in MT CO2e
Grassland	12.31	0.8	9.9	36.3
Oak Woodland	2.99	89.6	267.9	983.2
Total			**277.8**	**1,019.5**

Sources: Napa County Draft Climate Action Plan, March 2012; Napa County Conservation Division June 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 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 15.3-acre agricultural development would be approximately 10.3 MT CO_{2e} (15.3 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, while grasslands are essentially zero. 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 1.27 MT C per year or 7.3 MT CO_2e per year.[17]

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 1,163.3 MT CO_{2e} and annual ongoing emissions associated with vineyard operations (including loss of sequestration) estimated to be approximately 17.6 MT CO_{2e} per year (**Table 10**).

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

[17] 2.99 acres of oak woodland times 0.425 MT C = 1.27 MT C, and 12.31 acres of grassland times 0.057 MT C = 0.7, totaling 1.97 MT C

Table 10 – 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	143.8	Vehicles and Equipment	10.3
Vegetation and Soil	1,019.5	Loss of Sequestration	7.3
Total	**1,163.3**	**Total**	**17.6**

Source: Napa County Conservation Division, June 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 11,163.3 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, 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.

Pursuant to Section 15183(a) of the California Code of Regulation, 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. Further, the BAAQMD update to the thresholds of significance do not include construction-related climate impact thresholds (April 2022). GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions, and the updated thresholds for land use projects were designed to address operational GHG emissions, which represent the vast majority of project GHG emissions

In the context of 12,500 acres of projected vineyard development, the proposed project would constitute less than approximately 0.1% 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 80%, 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.

As stated above, the updated BAAQMD thresholds of significance for land use projects are qualitative, with no "bright-line" (quantitative) level below which to mitigate. 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). As stated in **Sections IV (Biological Resources)** and **X (Hydrology and Water Quality),** with implementation of **Mitigation Measure HWQ-1**, the project would eliminate woodland/forest removal resulting in the avoidance/preservation of all the parcels woodland/forest and associated tree canopy. Therefore, the loss in carbon sequestration from the proposed woodland/forest removal would be avoided with incorporation of **Mitigation Measure HWQ-1**.

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 4 one-way worker trips, and two one-way truck trips per day (resulting in up to 6 round trips per day) for approximately three days per year. Other typical vineyard operations (as outlined above) are anticipated to generate up to 4 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 with mitigation incorporated would result in avoidance of the parcel's woodland/forest, thereby maintaining the parcel's carbon-sequestering woodland/forest and associated tree canopy, 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.

No onsite storage of hazardous materials is proposed and materials will be brought in, as needed. A chemical mixing area will be located near an irrigation valve shed on the western edge of proposed Block O. Cleaning and washing of chemical application equipment would occur at an existing maintenance building yard on the project site. Fertilizers (12-26-26) would be applied via drip twice a year. Mildewcides (i.e., sulfur) and herbicides (i.e., glyphosate) would be applied twice a year. 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.

There is an ephemeral stream located north of proposed Block M and a second County definitional stream is located approximately 150 feet south and east of proposed Block O. The proposed project has been designed to have a 35 foot setback from the ephemeral stream located north of proposed Block M and a 65 foot setback from the definitional stream in conformance with NCC 18.108.025 (General Provisions – Intermittent/Perennial Streams). Streams delineated in the project site are shown in Figure 3 in **Exhibit B-1** (Northwest Biosurvey - December 2020).

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 of at least 50 feet from potential wetlands; ii) the proposed project would provide setbacks buffers exceeding the required 35 feet and 65 feet to ephemeral and definitional streams in conformance with code provisions; 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 of approval that would further avoid and/or reduce potential impacts associated with routine transport and use of hazardous materials during project implementation and ongoing vineyard operations and maintenance. While impacts related to routine use, transportation, and application of hazardous materials described above are anticipated to be less than significant, the project site does contain serpentine rock which contains asbestos (a group of naturally-occurring minerals). If serpentine bedrock or boulders are encountered and disturbed during grading, wind could disperse asbestos particles into the air. In addition, the ECPA identifies the potential hazard of an existing culvert that will be modified with the proposed project potentially containing asbestos. The following conditions of approval would be implemented to reduce potential accidental release of hazardous materials and prevent exposure to any airborne asbestos, if the project is approved:

Hazardous Materials – Conditions of Approval:

1. The owner/permittee shall implement the following BMPs during construction activities and vineyard maintenance and operations:
    a. Workers shall follow manufacturer's recommendations on use, storage and disposal of chemical products.
    b. Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
    c. During routine maintenance of equipment, properly contain and remove grease and oils.
    d. Discarded containers of fuel and other chemicals shall be properly disposed of.
    e. Spill containment features shall be installed at the project site wherever chemicals are stored overnight.
    f. 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.
    g. 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.
2. The owner/permittee shall implement the following measures to minimize impacts associated with the potential release of any airborne particles:
    a. If serpentine bedrock or boulders are encountered during construction and ground disturbing activities (i.e., grading), the material shall be thoroughly wetted to avoid any airborne particles.
    b. The existing 10 inch culvert shall be thoroughly wetted during removal to avoid any airborne particles.

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

c. The closest schools (St. Helena Primary School and St. Helena High School) are located approximately 1 mile north of the project site. There are no schools proposed within 0.25 mile of the project site. Therefore, no impact would occur.

d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer). Therefore, no impact would occur.

e. The closest public airport to the project site is the Angwin-Parret Field Airport, located approximately six 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. During construction, there would be negligible numbers of workers visiting the project site on a temporary basis to implement the ECP and install vineyards. Approximately five workers would also visit the site on a seasonal basis for subsequent vineyard operations. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and the impact would be less than significant.

g. No structures are proposed as part of the project. The project site is located in an area identified as having moderate, high, and very high fire severity (CalFire 2007 - https://egis.fire.ca.gov/FHSZ/). However, the risk of fire in vineyards is 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 the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

In April 2021, Governor Gavin Newsom declared a drought emergency in the state of California, which was expanded on October 19, 2021, to include all 58 counties in the state. The Governor directed the Department of Water Resources to increase resilience of water supplies during drought conditions. The County of Napa has not adopted or implemented any mandatory water use restrictions. The County requires all discretionary permit applications (such as use permits and ECPAs) to complete necessary water analyses in order 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

In March 2022, Governor Newsom enacted Executive Order N-7-22, ("EO") which requires prior to approval of a new groundwater well in a basin subject to the Sustainable Groundwater Management Act and that is classified as medium- or high-priority, obtaining written verification from the GSA (Groundwater Sustainability Agency) managing the basin that groundwater extraction would not be inconsistent with any sustainable groundwater management program established in any applicable GSP (Groundwater Sustainability Plan) and would not decrease the likelihood of achieving sustainability goals for the basin covered by a GSP, or that the it is determined first that extraction of groundwater from the new/proposed well is (1) not likely to interfere with the production and functioning of existing nearby wells, and (2) not likely to cause subsidence that would adversely impact or damage nearby infrastructure. . Because the proposed project relies on surface water rather than groundwater and because no new wells are proposed, the project is not subject to the EO.

The project site is located in the Bale Slough watershed that flows into Napa River (via an unnamed tributary to the Napa River) and 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).

Because vineyard properties may pose threats to water quality by discharging sediment, nutrients, and pesticides and/or by increasing storm runoff, which consequently can cause erosion and sedimentation and otherwise impact aquatic life, in July 2018 the San Francisco Bay Regional Water board adopted a water quality control permit (or General Permit) for vineyard properties in the Napa River and Sonoma Creek watersheds (Order #R2-2017-0033). The General Permit regulates parcels (including contiguous parcels under common ownership) developed with five or more acres of vineyard located in either of these watersheds. The Napa River and Sonoma Creek TMDLs adopted by the San Francisco Bay Regional Water Board have established performance standards for sediment discharge and storm runoff to protect and restore water quality. The General Permit would require actions to control pollutant discharges including sediment and storm runoff from vineyards and unpaved roads, which are located throughout vineyard properties, and pesticides and nutrients from vineyards. The General Permit would require vineyard owners or operators of parcels that meet the enrollment criteria to do the following: develop and certify a "farm plan[18]"; implement the farm plan to achieve discharge performance standards; submit an annual report regarding plan implementation and attainment of performance standards; and participate in group or individual water quality monitoring programs.

In the General Permit the San Francisco Bay Regional Water Board identified four significant sediment sources that are associated with vineyard properties: i) vineyard soil erosion; ii) offsite erosion caused by vineyard storm runoff increases; iii) road-related sediment delivery; and iv) channel incision. Napa County ECPA requirements and standards primarily address and control two of these sources, vineyard soil erosion and vineyard storm runoff. The General Permit will fill gaps in local regulation so that all four sediment sources are effectively controlled to reduce fine sediment deposition in stream channels that provide habitat for endangered steelhead populations, locally-rare Chinook salmon populations, and exceptionally diverse assemblages of native fish species in these watersheds. Additional details on the Vineyard Properties General Permit can be obtained from the Regional Water Board[19].

The closest blueline stream is an unnamed tributary to Napa River that is located about 800 feet north of the project site. The unnamed tributary runs to the Bale Slough thence the Napa River that is located approximately 2 miles east of the project site. There is an ephemeral stream located north of proposed Block M and a second County definitional stream is located approximately 150 feet south and east of proposed Block O. The proposed project has been designed to have a 35 foot setback from the ephemeral stream located north of proposed Block M and a 65 foot setback from the definitional stream in conformance with NCC 18.108.025 (General Provisions – Intermittent/Perennial Streams).

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 #P20-00103-ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Stormwater Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual. Therefore, the proposed project is not anticipated to violate any water quality standards or otherwise substantially degrade surface or groundwater quality, and impacts would be less than significant.

b. The County requires all ECPA applicants to complete necessary water analyses in order to document that sufficient water supplies are available for a proposed project. The proposed vineyard would be irrigated with surface water diverted to storage under existing water right permit (Permit 17297 - Application 24287).

   Water demands for the existing vineyard are met by surface water, and onsite uses (i.e., winery, landscaping, and other) are met with groundwater from two on site wells located adjacent to existing Vineyard Block G and Block J (shown on **Exhibit A-1**). The approximate 69 acres of existing vineyard is irrigated with approximately 18.5 AF per year (AF/yr) of surface water. The water demand for the other existing uses (i.e., winery, , landscaping, and other), which is supplied by groundwater is approximately 3.9 AF/yr. Therefore, the total existing water demand is 22.4 AF/year for the project site (**Table 11**).

[18] A farm plan documents a vineyard property's natural features, developed areas, and BMPs. Under the General Permit, a "certified" farm plan would mean that upon its full implementation of the plan, that the vineyard property is expected to achieve the performance standards for discharge. The Water Board's Executive Officer would approve third-party programs or certify a farm plan.

[19] https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/agriculture/vineyard/

Table 11 – Pre- and Post-Project Site Water Use

Water Use Type	Pre-Project Site Water Use (AF/year)	Post-Project Site Water Use (AF/year)
Winery	2.58	2.58
Commercial	0.20	0.20
Vineyard (long-term)	18.5	22.9
Landscaping	0.6	0.6
Other	0.5	0.5
Total	**22.4**	**26.8**

Source: LincolnAE LLC, March 2020, **Exhibit D-1**

A Water Availability Memorandum was prepared in order to determine the effects of the increase in water demand on the project site. Typically, the annual irrigation season ranges from late May to September. Water use for frost protection is not proposed. After full development, the proposed project would need approximately 4.4 AF of surface water per year to irrigate the approximately 13.1 net acres of new vineyard (**Table 11**) resulting in an overall demand of approximately 22.9 AF of surface water for the existing and proposed vineyard. Groundwater will not be used to supply the proposed new vineyard and is not used for the existing vineyard.

The proposed vineyard would be irrigated using surface water diverted to storage under an existing water right permit and a pending water right application (**Exhibit D-2** and **Exhibit D-3**, respectively), which allows for the diversion and storage of up to at least 90 AF/yr. Below is a synopsis of the water rights permit and application:

- Permit 17297 (Application 24287) was issued by the State Water Resources Control Board, Division of Water Right in 1978. The permit authorizes the storage of up to 90 acre-feet per year (AF/year) from November 1 to May 15 of the succeeding year for irrigation, heat control, and frost protection. The points of diversion are on two unnamed steams and water is stored in a reservoir on the northern side of the project site (labeled as Pond 4 in **Exhibit A-1**). The maximum rate of diversion to offstream storage shall not exceed 1.25 cubic feet per second. The permit was amended in 1997 to add 52 acres to the authorized place of use, for a total of 145 acres, which includes the previously planted portions of proposed Blocks M and O.

- Application 30597 submitted in 1997 proposes diversion to storage of up to 52 AF/year from November 1 to May 15 of the succeeding year for irrigation, frost protection, fire protection and recreational uses. The points of diversion are on two unnamed streams and water is stored in three reservoirs on the project site (labeled as Pond 1, Pond 2, and Pond 3 in **Exhibit A-1**). The maximum rate of diversion to offstream storage shall not exceed 3 cubic feet per second. The proposed place of use (120 acres) includes the previously planted portions of Blocks M and O.

Given that, the existing and proposed vineyard is anticipated to demand approximately 22.9 AF of surface water per year, which is below the project site's water right allocation of 90 AF/yr there are no anticipated direct impacts to groundwater. However, based on a comparison of the development area and the place of use (POU) map for Application 30597 and the narrative submitted with the ECPA, it is evident that a portion of the development area is not located within the POU prescribed under water rights Permit 17297 (Application 24287) and Application 30597. This area includes the portions of proposed vineyard Blocks M and O that were not previously planted in vineyard encompassing approximately 2.99 acres (i.e. the approximate 2.99 acres of woodland being proposed for conversion) (see **Exhibits D-2 and D-3**, and **Figure 4** for a copy of the place of use map for Application 30597 with the development area overlaid on the map). Because surface water is proposed as the project's water supply and a portion of the development area is located outside the place of use identified under water right Permit 17297 and Application 30597, the proposed project may not have a sufficient water source resulting in a potentially indirect significant impact on groundwater, in that groundwater would be necessary for vineyard irrigation. The lack of an adequate surface water source/supply for vineyard establishment could result in use of groundwater resources to irrigate and maintain the proposed vineyard (or portions thereof), which could negatively affect groundwater resources, resulting in a potentially significant indirect impact to groundwater resources.

Implementation of **Mitigation Measure HWQ-1**, which would require the owner/permittee to revise the ECPA prior to approval to remove areas located outside the project site's water rights POU would reduce this potential indirect impact to groundwater to a less than significant level.

> **Mitigation Measure HWQ-1:** To avoid potential impacts to groundwater the owner/permittee shall revise Erosion Control Plan #P20-00103-ECPA prior to approval to remove development areas located outside the Place of Use prescribed under the property's water right Permit 17297 (Application 24287) and Application 30597. This area encompasses the 2.99 acres of woodland proposed for conversion in Vineyard Block O.

Water Supply – Condition of Approval: The water source for vineyard developed and maintained pursuant to #P20-00103-ECPA, including but not limited to irrigation, frost protection and heat control, shall be surface water appropriated under State Water Resources Control Board, Division of Water Rights, Permit 17297 (Application 24287) and Application 30597. Groundwater shall not be utilized to develop or maintain the vineyard subject to # #P20-00103-ECPA, or any portions thereof, unless further review and analysis is conducted by the County.

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 establishment of a no-till cover crop with vegetative cover densities of 80% (including vegetated avenues and turnaround avenues), and the annual application of straw mulch cover on all disturbed areas at a rate of 4,000 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 **Exhibit E** for details related to the following discussion.

Proposed erosion control and project features that have the potential to alter natural drainage patterns include rolling dips, drainage improvements, landside repair, fiber rolls, silt fences, and rock benches. These features are not anticipated to significantly alter the exiting topography or drainage patterns of the project site, or direct surface flows into other watersheds (as further described below). As discussed in **Section VII** (**Geology and Soils**), erosion control features would maintain soil losses below the tolerable levels for the soil types found on the project site and ensure (in conjunction with the cover crop) that no net increase in erosion sediment conditions occurs as a result of the proposed project, and that the proposed project is anticipated to decrease soil loss as compared to existing conditions.

A Hydrology Report for the proposed project was prepared by LincolnAE LLC (LincolnAE LCC, March 2021 - **Exhibit E**). The development area is contained within one watershed basin. Two flow lines were defined within the watershed where drainage changes are proposed: at culvert installations proposed across Block O and across the landslide repair area where a diversion ditch is proposed in Block O. This watershed contains the proposed Blocks M and O. A subwatershed was also included in the Hydrology Report to analyze runoff volumes that may be entering the new proposed culverts.

The Hydrology Report utilized the WinTR-55 Watershed Hydrology model (WinTR-55) to conclude that there would not be an increase in peak flow for all watersheds in the development area (**Table 12**).

Table 12 –Hydrologic Modeling Calculations (WinTR55) Results: Runoff Rates

	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
Watershed 1- Peak Flow for Culvert Analysis Flow Line				
Pre-project conditions	21.25	36.95	53.48	60.50
Post-project conditions	21.19	33.32	48.27	54.65
Change (cfs)	-0.06	-3.63	-5.21	-5.85
Change (%)	-0.30	-9.82	-9.74	-9.67
Watershed 1- Peak Flow for Ditch Analysis Flow Line				
Pre-project conditions	19.16	33.38	48.36	54.71
Post-project conditions	19.13	33.32	48.27	54.65
Change (cfs)	-0.03	-0.06	-0.09	-0.06
Change (%)	-0.16	-0.18	-0.19	-0.11

Source: LincolnAE LLC, March 2021 (**Exhibit E**)

The proposed project would not increase runoff flow rates, consistent with General Plan Conservation Element Policy CON-50c, which states peak runoff following development cannot be greater than predevelopment 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 overall increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. Additionally, the Hydrology Report determined that the proposed 12-inch and 18-inch culverts would have adequate capacity to handle predicted storm flows. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and sedimentation is anticipated under post-project conditions. Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less than significant impact.

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.[20]

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 project site is not subject to a Water Quality Control Plan approved by the State Water Board pursuant to Division 7 of the Water Code, or a Sustainable Groundwater Management Plan. As such, no conflicts or impacts associated with Water Quality Control or Sustainable Groundwater Management Plans are anticipated to occur.

As discussed in **Section VII (Geology and Soils)** and **Section IX (Hazards and Hazardous Materials)**, while the proposed project as designed is anticipated to reduce soil loss by approximately 45.84 tons/year and not increase runoff rates as compared to existing conditions, the project would use potentially hazardous materials during construction and ongoing vineyard operations that has the potential to negatively affect water quality. As discussed in **Section IX (Hazards and Hazardous Materials)**, buffers provided through the implementation of **Mitigation Measure HHM-1** adjacent to aquatic resources (streams and wetlands) 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. Therefore, the proposed project as designed, in conjunction with identified mitigation and conditions of approval, would not conflict with or impact implementation of a water quality control plan or sustainable groundwater management plan

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 ECPA to area watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact on or offsite water resources. Because the proposed project, as designed, is not expected to increase overall runoff rates or decrease times of concentration in relation to existing conditions (as discussed in question c above), the proposed cover crop and buffers would be able to effectively trap and filter sediments, thereby minimizing their entry into nearby water resources.

As discussed above and in **Section VII (Geology and Soils)**, the proposed project has been designed with site-specific temporary and permanent erosion and runoff control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. As such, the proposed project is anticipated to reduce soil loss and sedimentation by approximately 9.9 tons/year, have no effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

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

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

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

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

Discussion

a. The project site is in a rural area of Napa County and the nearest established community is Zinfandel, less than a mile northeast of the project site. The project site contains existing vineyard land and, therefore, the proposed vineyard and subsequent vineyard operations is consistent with surrounding land uses and would not physically divide an established community and no impact would occur.

b. The project site is zoned as Agricultural Preserve and Agricultural Watershed and is designed under the Napa County General Plan as Agriculture, Watershed and Open Space and Agricultural Resource. Surrounding land uses consist predominantly of undeveloped land, scattered rural residential, wineries, and agricultural land (vineyard). Surrounding parcels are zoned Agricultural Watershed and Agricultural Preserve in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 9.9 tons per year and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and maintain runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BR-1and HWQ-1** 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. A Biological Resource Assessment was prepared for the proposed project. The proposed 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 BR-1 and HWQ-1** potential impacts to special-status and protected bird and bat species would be avoided. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that, impacts to special-status species and their habitat can be avoided.
- With implementation of **Mitigation Measures BR-1 and HWQ-1,** and the fencing and tree/woodland conditions of approval, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- With implementation of **Mitigation Measures BR-1 and HWQ-1,** and the fencing conditions of approval, the proposed project is consistent with Policy CON-13, which requires discretionary projects to consider and avoid impacts to fisheries, wildlife habitat, and special-status species, and Policy CON-17, which requires the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities.
- The proposed project is consistent with CON-16, which requires discretionary projects prepare an evaluation of biological resources. A Biological Resource Assessment was prepared for the proposed project (**Exhibit B-1**).
- The project site has approximately 2.68 acres of wetlands within its boundaries; however, the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands, because proposed vineyard Blocks M and O avoid wetlands within the project site.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. With incorporation of the fencing conditions of approval, and the proposed project's small amount of proposed new fencing, wildlife movement would not be impaired.

- 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 proposed project is consistent with Policy CON-65b. Due to the proposed project's scope and scale, its construction and operational GHG emissions, as disclosed in **Section VIII (Greenhouse Gas Emissions)**, are anticipated to be less than significant.
- The proposed project is consistent with Policy AG/LU-1, which states that agricultural and related activities are the primary land uses in Napa County, as the proposed project is vineyard development and would increase agriculture uses in the County.
- The proposed project is consistent with the General Plan land use designation of 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 the Syar Napa Quarry, located approximately 17.7 miles southeast of the project site. Proposed site improvements and development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
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, agriculture (planted with vineyards), and contain wineries. The nearest off site residences are located approximately 1,000 from the development areas. Additionally, adjacent proprieties and other properties in the immediate area contain vineyards. 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 13** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 13**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 13 – 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 14 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 14 – 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 between approximately 50 and 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 15** 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 15 – Estimated Distance to dBA Contours from Farming Activities [1]

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

[1] Based on a source noise level of 84 dBA
Source: Napa County Baseline Date Report, Noise Section Table 6-14, Version 1, November 2005.

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be approximately between 50 and 55 dBA 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). As the closest offsite residence would experience construction noise levels of approximately 60 to 75 dBA, noise and vibration impacts associated with project development are anticipated

to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be less than typical for compatible uses, and the temporary and ongoing noise sources and levels are considered typical and reasonable for agricultural development and operational activities, consistent with the County's "Right to Farm" ordinance (NCC Chapter 2.94 and General Plan Agricultural Preservation and Land Use Policy AG/LU-15), and are therefore exempt from compliance with the noise ordinance. NCC Section 8.16.090.E (Exemptions to Noise Regulations) exempts agricultural operations from noise regulations. Additionally, the proposed project would not result in a permanent increase in ambient noise levels over what currently exists in the project vicinity, resulting in a less than significant impact on ambient noise levels of the area.

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

c. The project site is neither located within an area covered by an airport land use plan, nor is it within 2 miles of a public, public-use, or private airport (Napa County GIS: Napa Airport Compatibility Zones and USGS Quad layers). Therefore, no impact would occur.

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

Discussion

a. The proposed project involves earthmoving activities and the installation and maintenance of erosion control measures in connection with the development and cultivation of 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 associated with the proposed project would generate a minimal number of workers to the project site on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the 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 workers would come from the existing labor pool in the local region and would not result in an increase in population over existing conditions. As a result, there would be no need to construct any new government facilities. Therefore, there would be no change in the demand for the listed services and amenities. No impact would occur.

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

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☐	☒
e) Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity?	☐	☐	☐	☒

Discussion

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

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

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

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

The TIS Guidelines also include VMT analysis requirements for projects based on trip generation, which includes a screening approach that provides a structure to determine what level of VMT analysis may be required for a given project. For a new project that would generate less than 110 net new daily vehicle and truck trips, not only is the project not required to prepare a TIS, it is also presumed to have a less than significant impact for VMT. However, applicants are encouraged to describe the measures they are taking and/or plan to take that would reduce the project's trip generation and/or VMT.

Projects that generate more than 110 net new passenger vehicle trips must conduct a VMT analysis and identify feasible strategies to reduce the project's vehicular travel, if the feasible strategies would not reduce the project's VMT by at least 15%, the conclusion would be that the project would cause a significant environmental impact.

Currently, the project site is developed with approximately 69 acres of vineyard, a winery and office buildings, four water storage reservoirs and one developed spring, and two wells. The project site is primarily accessed from the St. Helena Highway via West Zinfandel Lane and has a secondary access via Inglewood Avenue. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to six passenger vehicle round trips per day during construction. Up to six truck trips would deliver and remove heavy equipment generally occurring during the first two weeks of construction and over the last two months of construction. Typical construction equipment would include a tractor and disk, excavators, bulldozers, loaders, water truck, and farm tractors with trailers. Pruning would occur between January and February approximately three days of the year and is anticipated to require up to four workers. Weed control would occur between March and August (outside of the pruning months) up to two times a year and would require one worker. Harvest would occur approximately four days during the year and is anticipated to require up to five workers. Up to four additional vehicle round trips per day would occur seasonally during operation associated with the project, including harvest. Vehicular equipment for ongoing vineyard maintenance is anticipated to include a tractor with trailer, a forklift, and ATVs and passenger vehicles and/or light trucks. Some of this traffic already exists onsite due to the operation and maintenance of the existing vineyard. 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.

Because the proposed project would be expected to generate up to approximately 6 daily trips during construction and up to approximately 4 daily trips for ongoing operations and maintenance, below the 110 trip threshold in the Office of Planning and Research guidelines and the County's TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts would be less than significant.

c. The proposed project would utilize existing site access off West Zinfandel Lane for project development (**Figures 1-3**). The project site has a secondary access via Inglewood Avenue. The proposed project does not include roadway improvements and/or modifications to West Zinfandel Lane, or include any other design feature that would result in hazardous conditions due to a geometric design feature or incompatible uses. The installation of the vineyard is consistent with the allowed use of the project site and other agricultural uses in the

area. Therefore, the potential for the creation of or substantial increase in hazards due to a geometric design feature or incompatible uses would be a less than significant impact.

d. The existing roads would continue to provide adequate emergency access to the project site, resulting in no impact. Refer to **Section IX, Hazards and Hazardous Materials**, for additional discussion related to emergency access.

e. The project's largest demand for parking during either construction or operations is anticipated to be approximately 10 to 12 vehicles. Current county ordinances do not require formal parking for agricultural projects. Project parking would occur within the project area and/or within existing vineyard avenues and access roads, which would satisfy parking demands of project installation and subsequent operation. Therefore, no parking impacts are anticipated.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES. Would the project:				
Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Discussion

Notice of the proposed project was sent to Middletown Rancheria, Mishewal Wappo Tribe of Alexander Valley, and Yocha Dehe Wintun Nation on April 17, 2020. The County received a response letter from Yocha Dehe Wintun Nation on April 30, 2020, indicating that the project area is not located within the aboriginal territories of the Yocha Dehe Wintun Nation, and the reply stated that correspondence should be conducted with the Mishewal Wappo Tribe of Alexander Valley. On June 15, 2020, the County replied to the Yocha Dehe Wintun Nation and closed the consultation invitation because the Tribe did not request consultation.

The County also sent consultation closure notices to the Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitation was provided.

a-b. As discussed in **Section V (Cultural Resources)** the proposed project's cultural resources study (Tom Origer & Associates, November 2019), identified no cultural resources within the development area. Furthermore, no resources that may be significant pursuant to Public Resources Code Section 5024.1(c) have been identified or are anticipated in the development area. The Cultural Resources conditions of approval discussed in **Section V (Cultural Resources)** would avoid and reduce potential impacts to unknown resources.

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

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

Discussion

a. The proposed project would generate a minimal number of workers to the project site on a temporary basis during construction, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing seasonal basis. It is anticipated that a majority of these workers would come from the existing labor pool in the region and would not generate a significant 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, or the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater

The proposed project would include the installation of a limited number of onsite storm water drainage features such as rolling dips, drainage improvements (including diversion ditches, drop inlets, subsurface drain lines, and level spreader), landside repair, fiber rolls, silt fences, rock benches, and a permanent vineyard cover crop, which have been designed to meet project-related storm water drainage needs. The effect of the proposed storm water drainage features is described in **Sections IV (Biological Resources), VII (Geology and Soils),** and **X (Hydrology and Water Quality)**. As discussed in the referenced sections, the environmental impacts of construction of these features, with incorporation of standard conditions identified in **Sections III (Air Quality), IV (Biological Resources), V (Cultural Resources)** and **IX (Hazards and Hazardous Materials)**, would result in a less than significant impact.

b. As disclosed and assessed in **Section X (Hydrology and Water Quality)**, because a portion of the development area is not located within the place of use (POU) prescribed under water rights water Permit 17297 (Application 24287) and Application 30597 **Mitigation Measure HWQ-1** is being implemented. This measure would require the removal of areas located outside the project site's POU to minimize potential groundwater supply impacts to a less than significant level.

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

d-e. Rock generated during vineyard preparation would be utilized onsite for erosion control measures including road base (crushed to aggregate size), decorative rock, and rock benches where needed. Any leftover rocks would be stored at an existing on-site rock disposal area for future use inside the proposed clearing limits. Grading for the landslide repair would require disturbance of approximately 2 acres (40,000 cubic yards of cut and fill). Landslide repair is discussed in greater detail in **Section VII (Geology and Soils).** Solid waste generated during construction activities (e.g., trash, discarded building materials, debris, etc.) would be negligible and would be cleared daily, or as necessary. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of onsite by spreading it back into the vineyard, burning it, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would

exceed the permitted capacity of applicable landfills serving the project area. Furthermore, all waste would be disposed of in accordance with federal, state, and local 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 primarily located in State Responsibility Areas (SRA) that are designated as Moderate, High, and Very High Fire Hazard Severity Zone (CalFire, 2007; Napa County GIS CalFire Layers, Fire Protection Responsibility Areas and Fire Hazard Severity Zone). Elevations within the project site range from approximately 200 to 700 feet above msl.

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. Refer to **Section XVII (Transportation)** for additional discussion related to emergency access.

b-c. Project construction would require the use of vehicles and heavy equipment for grading and other activities, and these vehicles and equipment could spark and ignite flammable vegetation. During construction, the risk of igniting a fire would be low because vegetation would be cleared prior to developing the vineyard, and the risk would be temporary due to the short duration of construction (two phases of approximately six months each). 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. Although the project site is in an area that historically has experienced wildfires, the proposed project would not exacerbate wildfire risk and this impact would be less than significant.

d. Although the proposed project would alter land cover, temporary and permanent erosion control measures would be implemented which would reduce the impact of stormwater runoff or drainage changes being discharged on or offsite, resulting in no increased peak flow in the development area (see **Section X [Hydrology and Water Quality]**). There are no structures or people that would be exposed to downslope or downstream flooding or landslides and, therefore, 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 #P20-00103-ECPA, with the incorporation of identified mitigation measures and conditions of approval (should the proposed project be approved), would not have the potential to significantly degrade the quality of the environment.

   Implementation of **Mitigation Measures BR-1 and HWQ-1** would avoid potential direct and indirect impacts to oak woodland habitat and special-status and protected bird and bat species and their habitat. The proposed new vineyard blocks would be fenced individually. Given the relatively small size of the project site (relative to existing wildlife corridors), agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. While the proposed project (vineyard blocks) would result in portions of the site having reduced potential for on-site wildlife movement, the retention of blocks of vegetation with direct connectivity with similar habitats in the project site and on neighboring properties would allow for continued local wildlife movement. As such, the proposed wildlife exclusion fencing would not introduce any new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant, and the range of special-status plant species would not be restricted, cumulative impacts are anticipated to be less than significant. The project site contains one primary intermittent drainage and a number of ephemeral tributaries. To reduce impacts on water quality within the drainage, the proposed project has been designed to avoid the intermittent stream with setbacks determined by slope as outlined in NCC §18.108.025 and the streams that do not meet the Napa County definition of a stream have been avoided with a minimum 35-foot setback in accordance with NCC §18.108.025. With incorporation of standard conditions 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 **Mitigation Measures BR-1 and HWQ-1,** and conditions of approval, would have a less than significant potential to degrade the quality of the environment.

b. The project site is located in the Bale Slough Drainage area, which flows into Napa River and San Pablo Bay. The Bale Slough Drainage area contains approximately 3,853.4 acres. In 1993, vineyard acreage within this drainage was approximately 1,519.7 acres, or 39.4% of the drainage. Since 1993 approximately 322.0 acres of additional vineyard (or 8.4% of the drainage) have been developed to vineyard, resulting in approximately 47.8% of the drainage (or approximately 1,841.7 acres) containing vineyard.

   It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Bale Slough Drainage, that there are approximately 662.3 acres (17.2% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 1,841.7 acres), results in a total potential build out of approximately 2,504.0 acres or approximately 65.0% of the drainage. The Potentially Productive Soils layer includes lands with characteristics that have been found to be suitable for potential future vineyard development; however this total does not take into consideration other site-specific limitations such as water courses requiring setbacks, wetlands, other water features, rare or special-status plants and animal species, or cultural resources, nor does the layer take into account other factors influencing vineyard development, such as sun exposure, soil type, water availability, or economic factors.

   While it is not possible to precisely quantify the acreage and location of additional vineyard development that may be proposed by property owners in these drainages in the future, it is possible to make a conservative estimate based on previous trends. To estimate the amount reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., Bale Slough watershed) over the last 28 years (1993-2021) were used to project an estimation of vineyard development for the next three to five years. Over the past 28 years within the Bale Slough Drainage, approximately 11.5 acres of agriculture were developed per year (322 divided by 28). 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 34.5 to 57.5 acres over the next three to five years within the Bale Slough Drainage are considered reasonable estimates. NCC Chapter 18.108 includes policies that require setbacks

of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Agriculture and Forestry Resources- Section II:

The establishment of vineyard totaling approximately 15.3 gross acres (13.1 net acres) is consistent with project site's land use and zoning designations. The proposed project would include the conversion of 2.99 acres of commercial timberland to vineyard under the CalFire Less than 3-acres THP/TCP Conversion Exemption Permit. As designed, and in conjunction with the identified condition of approval, the proposed project would not result in a significant cumulative conflict with existing zoning for, or cause rezoning of, timberland or result in the significant cumulative loss of forest land or conversion of forest land to non-forest use.

Air Quality and GHG - Sections III and VIII:

The proposed project (#P20-00103-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended PM and equipment exhaust emissions. 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 4** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds, and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less than significant air quality effects of the proposed project and ongoing operation. Conversion of existing vegetation and disturbance of soil would result in releases of carbon dioxide, one of the gasses that contribute to climate change (**Tables 8** and **9**). 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:

Project-specific Biological Resources Reconnaissance Surveys (Northwest Biosurvey, December 2020 - **Exhibit B-1** and Forest Ecosystem Management, November 2020 - **Exhibit B-3**) were 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 surveys included database records searches to identify the presence or potential presence of special-status species within the project area. The database records searches included the CNDDB, CNPS, and Napa County databases. As discussed in **Section IV** (**Biological Resources**), wetlands were identified in the project site outside of the development area. No special-status plant species are present within the development area and 14 special-status animal species have the potential to occur within the development; however, with the implementation of **Mitigation Measures BR-1 and HWQ-1**, impacts on these species would be less than significant. 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:

The cultural resource reconnaissance survey (Tom Origer & Associates, November 2019) identified no cultural resources in the development area. With the incorporation of standard conditions to protect cultural and tribal cultural resources that may be discovered accidently, significant impacts to cultural and tribal cultural resources are not expected (see **Section V [Cultural Resources]** and **Section XVII [Tribal Cultural Resources]**). Therefore, with the incorporation of the identified conditions of approval, the proposed vineyard development project would have a less than significant project-specific and cumulative impact on cultural and tribal cultural resources.

Geology and Soils - Section VII:

Soil loss and associated sedimentation resulting from implementation of the proposed project is anticipated to be reduced by approximately 9.9 tons/year as compared to existing conditions (**Table 7**). 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, and would implement erosion and runoff control conditions of approval, the proposed project is not

anticipated to contribute cumulatively to sediment production within the Bale Slough watershed. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hazards and Hazardous Materials - Section IX:

The project site contains serpentine rock which contains asbestos (a group of naturally-occurring minerals). If serpentine bedrock or boulders are encountered and disturbed during grading, wind could disperse asbestos particles into the air. In addition, the ECP identifies the potential hazard of an existing culvert that will be modified with the proposed project potentially containing asbestos. The proposed project would implement the identified hazardous materials conditions of approval. Impacts associated with the use, storage, and transport of hazardous materials and accidental release of hazardous materials would be less than significant and no cumulative impacts would occur.

Hydrology and Water Quality - Section X:

Water use calculations provided in the Water Availability Memorandum prepared by LincolnAE LLC (March 2020 - **Exhibit D-1**) indicate that the proposed development consisting of approximately 13.1 net acres of planted vineyard would result in approximately 4.4 AF/year of additional water use compared to the approximately 22.4 AF/year used under current conditions, totaling approximately 26.8 AF/year (**Table 11**). Of this 26.8 AF/year, approximately 22.9 AF/year for vineyard irrigation (including the 4.4 AF/year with the proposed project) would be met with surface water and no groundwater.

As discussed in **Section X (Hydrology and Water Quality)**, it appears that a portion of the development area is not located within the place of use prescribed under water rights water Permit 17297 (Application 24287) and Application 30597. Implementation of **Mitigation Measure HWQ-1**, in conjunction with the water supply condition of approval in **Section X** would ensure that the proposed project is supplied by surface water subject to and consistent with existing water rights or any amendments thereto, and would reduce this potential impact to a less than significant level.

As discussed in **Section X.c (Hydrology and Water Quality)** a Hydrologic Analysis utilizing the WinTR55 Runoff Model has been prepared by LincolnAE LLC (LincolnAE LLC, November 2020 - **Exhibit E**). Because the proposed project does not include new diversions, create concentrated flows, or otherwise alter site drainage patterns, and does not materially alter site slopes, no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions (**Exhibit E**). Therefore, no significant impacts due to changes in hydrology are expected.

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

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

Land Use and Planning - Section XI:

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

Utilities and Service Systems - Section XIX:

With the implementation of **Mitigation Measure HWQ-1** and the water supply conditions of approval in **Section X [Hydrology and Water Quality**, the proposed project would be supplied by surface water subject to and consistent with existing water rights or any amendments thereto. Therefore, the proposed project would not result in a cumulative impact on utilities and service systems.

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

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

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

LIST OF FIGURES:

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