

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:** Meka Vineyard, Agricultural Erosion Control Plan Application (ECPA) File #P24-00065-ECPA
2. **Property Owner(s):** Muktheswara Rao Meka, Trustee of the Muktheswara R. Meka Family Trust
3. **Contact Person, Phone Number and Email:** Donald Barrella, Principal Planner, (707) 299-1338, Donald.Barrella@countyofnapa.org
4. **Project Location and Assessor's Parcel Number:** 4473 Atlas Peak Road Napa, CA 94558
Assessor's Parcel Number (APN) 032-540-034 (**Figures 1 and 2**)
Section 24, Township 7 North Range 4 West, Mt. Diablo Base and Meridian
Latitude 38°26'33.93" N / Longitude 122°15'01.59" W
5. **Project Sponsor:** Muktheswara Rao Meka
4473 Atlas Peak Road
Napa, CA 94558
Plan Preparer: Michael R. Muelrath, (RPE# 45102)
Applied Civil Engineering Inc.
2160 Jefferson Street, Suite 120
Napa, CA 94559
6. **General Plan Designation:** Agriculture, Watershed & Open Space (AWOS)
7. **Zoning:** Agricultural Watershed (AW)

8. **Description of Project:**

The proposed project involves the clearing of vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 26.0 gross acres of vineyard (i.e., proposed development area or project area) with approximately 19.8 net planted acres in three proposed vineyard blocks (Blocks A, B and C), located on an approximately 96.6-acre parcel (i.e., project site). The acreages of each of the three proposed vineyard blocks are indicated in **Table 1**. The proposed project includes the removal of 12 oak trees greater than 6-inch diameter at breast height (DBH) within the proposed development area, the repair of a landslide encompassing approximately 0.5-acres located within the southwest corner of Block A, and the installation of two (2) 50,000-gallon corrugated steel water storage tanks (approximate dimensions: diameter 30 feet, height 20 feet) located in the northwest corner of Block B. The proposed project would be irrigated by two existing on-site wells (referred to as the New Well and House Well) and three on-site springs.

Table 1 – Proposed Vineyard Block Acreage

Block	Net Acreage	Gross Acreage ¹
A	8.4	10.4
B	4.6	5.9
C	6.8	7.9
Access Roads ²	0	1.8
Total	19.8	26.0

¹ Gross acreage includes tank pads, landslide repair, and irrigation line installation.

² Acreage associated with maintenance and upgrading of existing access road from Atlas Peak Road to Vineyard Block C.

Rock removed during vineyard development would be used within the proposed development area for erosion control features. Short-term stockpiles, if needed, would be located within the proposed development area; no long-term stockpiles are proposed. There would be no transport of spoils off-site. The proposed vineyard would be irrigated from two existing on-site wells generally located between proposed Blocks A and B, and three developed springs that originate from groundwater located within proposed Block A, with an anticipated demand of approximately 8.56 acre-feet (AF) of groundwater annually. New wildlife exclusion fencing would be located around Blocks A & B as a unit and around Block C. Irrigation pipelines would be located in existing access roads, vineyards and vineyard avenues, and/or within the proposed development area except for an approximate 75-foot segment at the western border of Block A to the existing access road encompassing approximately 350 square feet. An abandoned cabin/structure located in proposed vineyard Block A would be removed to accommodate the vineyard development.

Erosion Control Measures: Temporary erosion control measures include installation of silt fence and/or straw wattle sediment barriers, erosion control blankets, water bars, the application of straw mulch at a rate of 3,000 pounds per acre, and a temporary cover crop maintained

at a minimum coverage of 85% in proposed vineyard Blocks A and B and 75% in proposed vineyard Block C. Permanent erosion control measures include rolling dips, rock rip-rap energy dissipaters, and a permanent cover crop to achieve a minimum coverage of 85% in proposed vineyard Blocks A and B and 75% in proposed vineyard Block C. Details of the proposed erosion control measures are provided in the Meka Vinyard, Vineyard Development and Erosion Control Plan (dated February 2024, revised June 2024) prepared by Michael R. Muelrath (RPE# 67435) of Applied Civil Engineering, Napa, California (**Exhibits A-1 through A-4**).

Earthmoving: Earthmoving and grading activities associated with the land contouring include 2,000 cubic yards of cut and fill (balanced onsite) for landslide repair, water tank pad installation, and the installation of erosion control measures. Subsequent vineyard operations include, but are not limited to, clearing and grubbing of existing vegetation, re-contouring and land smoothing to promote sheet flow, repair of small landslide in proposed Block A, ripping and rock breaking as needed to fracture subsoils and rock to a depth of approximately 24 to 48 inches to prepare soil for planting and to incorporate soil amendments within the vineyard footprint area, mechanical and hand rock raking to remove loose rocks from the ground surface, disking and harrowing to prepare seedbed for vegetative erosion control measures, installation of erosion control features, installation of vineyard irrigation and trellis systems, and planting of vines.

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

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

Table 2 lists a general schedule for the construction of the proposed project as identified in #P24-00065-ECPA and **Table 3** outlines typical general ongoing vineyard operations. The vineyard would be developed in one phase, with construction occurring for up to six months during the year. The final implementation schedule is pending action on #P24-00065-ECPA.

Table 2 – Implementation Schedule

April 1 – September 1 ¹	Remove existing vegetation, complete ripping, grading and disking, planting
Prior to September 15 ²	All winterization complete, including seeding, straw mulching, and straw wattle installation.
September 15 – April 1	Maintain erosion and sediment control devices, inspect after all rain events producing significant runoff, re-seed temporary cover crop as needed to maintain appropriate cover.

¹ During the winter months in municipal watersheds (September 1 to April 1 of the succeeding year), no earthmoving work is allowed by the Napa County Code (NCC) Sections 18.108.027(C) and 18.108.070(L).

² All winterization measures must be in place by September 15 of any given year in municipal watersheds pursuant to NCC Section 18.108.027(C).

Table 3 – Typical Annual Operations Schedule

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

Vineyard construction is anticipated to generate up to 30 round trips per day for anticipated work crews of up to 30 employees, including truck trips for equipment and supply delivery. Anticipated construction equipment would include track driven tractors with ripping shanks, excavators, rock hammers, backhoes, dump trucks, water trucks, and typical track and rubber wheel farming tractors and equipment.

Proposed vineyard operations are anticipated to generate 150 truck trips annually. Typical operations include but are not limited to irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vine/vineyard inspection, on the days when these activities occur. During peak operations, activities such as vineyard pruning, weed and pest control, and harvest are anticipated to generate up to 20 round trips per day, including grape haul trucks, for anticipated work crews of up to 20 employees. Anticipated equipment for vineyard operations would include track driven tractors with ripping shanks, excavators, rock hammers, backhoes, dump trucks, water trucks, and typical track and rubber wheel farming tractors and equipment.

Implementation of the proposed project would be in accordance with the Track I Vineyard Development and Erosion Control Plan prepared by Applied Civil Engineering (February 2024, Revised June 2024 – **Exhibits A-1 through A-4**). 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 [Current Projects Explorer | Napa County, CA](#)

9. Describe the environmental setting and surrounding land uses.

The approximately 96.6-acre project site (APN 032-540-034) is located at 4473 Atlas Peak Road, approximately 5.9 miles northeast of the City of Yountville, California (**Figures 1-3**). Existing private driveways on Atlas Peak Road provide access to the project site. Existing improvements on the project site include a residence and related infrastructure, an abandoned cabin, a driveway and dirt road, and three groundwater wells and three developed springs. Surrounding properties are generally used for agricultural and rural residential purposes. Residential development generally consists of single-family residences. The nearest off-site residences to the project site are located approximately 150 feet southeast of the project site, the next closest residence is located over 450 feet to the east.

The general topography in the vicinity of the project site consists of the rolling hills and mountains. The topography of the project site is characterized by gentle to steep slopes with slopes in the area ranging from 5% to in excess of 30%. Slopes within the proposed development area range from 4% to 27%, with an average slope of approximately 12%. Approximately 0.5 acres of the proposed development area would be on slopes greater than 30%. The proposed vineyard blocks are located adjacent to existing vineyard blocks to the north and east of the project site at elevations ranging from 2,045 to 2,525 feet above mean sea level.

Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Aiken loam 2 to 15% slopes, Aiken loam, 30 to 50% slopes, Hambright rock-outcrop complex 30 to 75% slopes, and Henneke gravelly loam 30 to 75% slopes. The closest active faults are the West Napa Gault and the Green Valley fault, located approximately 5 miles west and south, respectively, of the project site (Napa County GIS Faults Layer, Napa County General Plan Safety Element). A landslide deposit is located within proposed vineyard Block A (**Exhibit C-1**).

The project site is predominately located within the Capell Creek Upper Reach drainage within the Putah Creek Watershed, a small portion of the project area (approximately 1-acre within the southwestern corner of Block C) is located in the Milliken Reservoir Sensitive Domestic (Municipal) Water Supply drainage that is within the Napa River Watershed. There are three U.S. Geological Survey (USGS) unnamed blue-line streams located between 850 feet and 3,100 feet to the south/southeast of the project site and a named blue-line stream (Stoney Creek) located between 1,700 feet to 2,300 feet to the north of the project site.

Rainfall runoff from most of the project site flows easterly and southerly to a U.S. Geological Survey (USGS) blue-line stream located approximately 3,100 feet southeast of the project site, which is tributary to Capell Creek. A small area in the southwest portion of the project site drains southerly into a blue-line stream located approximately 850 feet south of the project site, which is tributary to Milliken Creek. The project site is not within the Napa Valley Groundwater Sustainability Agency (GSA) boundaries and is not in any designated groundwater-deficient area. The closest significant streams to the project site are located over 2,900 feet to the south and over 2,400 feet to the north of the project site.

The vegetation types on the project site include California black oak forest, toyon chaparral, and non-native grassland.

10. Background:

On April 2, 2024, the City of Napa Water Division, water purveyor for the Milliken Creek Reservoir Sensitive Domestic Water Supply Drainage, was notified of this application pursuant to NCC Section 18.108.027(E). On April 16, 2024, a response letter was received from the City of Napa. While the City's review of the proposed project determined that the ECPA appears sufficient to address the municipal requirements, and predicted hydrologic effects should be protective of water quality, the ECPA would need to be adequately maintained and monitored so that exceedances of sediments, silt, and nutrients do not occur.

The project site was burned in the 2017 Atlas Fire and the 2020 LNU Lightning Complex Fire, and it is therefore subject to NCC Section 8.80.130, which requires the vegetation canopy cover analysis (per NCC Section 18.108.020(C)) use a baseline of June 19, 2018, for evaluating canopy impacts. This application considers pre-fire conditions as "existing" conditions. The vegetation within the project site before the LNU Fire consisted of toyon chaparral, non-native grassland, and California black oak forest. The property was also affected by the 1981 Atlas Peak fire.

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

Responsible (R) and Trustee (T) Agencies

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

Other Agencies Contacted

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

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

Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on April 2, 2024. On April 15, 2024, Yocha Dehe responded that the project site is not within the aboriginal territories of the Tribe, and therefore the invitation for consultation was declined; the County acknowledged the response in a letter dated June 10, 2024, and closed the consultation invitation. The County sent consultation closure notices to Mishewal Wappo Tribe of Alexander Valley and Middleton Rancheria on June 10, 2024, because no request for consultation was received, and more than 30 days had elapsed since the County's consultation invitations were provided. This is discussed in detail in **Section XVIII (Tribal Cultural Resources)**.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

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

ENVIRONMENTAL IMPACTS AND BASIS OF CONCLUSIONS

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

Other sources of information used in the preparation of this Initial Study include site-specific studies conducted and filed by the applicant in conjunction with ECPA #P24-00065-ECPA as listed below, and the environmental background information contained in the permanent file on this project. These documents and information sources are incorporated herein by reference and available for review at the Napa County Department of Planning, Building and Environmental Services located at 1195 Third Street, Suite 210, Napa, CA 94559, or <https://www.pbes.cloud/index.php/s/YTZtMmRyG38seT>.

- Applied Civil Engineering, February 2024, revised June 2024 Meka Vineyard, Vineyard Development Erosion Control Plan (**Exhibit A-1**).
- Applied Civil Engineering, February 2024, revised June 2024 Meka Vineyard, Vineyard Development Erosion Control Plan, Erosion Control Plan Narrative (**Exhibit A-2**).
- Applied Civil Engineering, June 2024, Meka Vineyard Vegetation Canopy Cover Exhibit (**Exhibit A-3**).
- WRA Environmental Consultants, February 2024, revised June 2024, Biological Resources Reconnaissance Survey, 4473 Atlas Peak Road (APN 032-540-034) Napa County, California (**Exhibit B-1**).
- WRA Environmental Consultants, June 2024, Meka Vineyard Conversion, Napa County ECP - Response to Napa County Comments on Biological Resources (File #P24-00065 ECPA) (**Exhibit B-2**).
- Napa County, Vegetation Clearing and Retention Analysis for Sensitive Domestic Water Supply Watershed (**Exhibit B-3**).
- Archeological Resource Service, December 2022, Archaeological Resource Management Report for the Meka Vineyard Development at 4473 Atlas Peak Road, Napa County, CA (APN 032-540-034) (**Exhibit B-4**: contents confidential).
- RGH Consultants, December 29, 2022, Geologic Study, Meka Vineyard Landslide Study, 4473 Atlas Peak Road, Napa, California (**Exhibit C-1**).
- RGH Consultants, May 16, 2024, Revised May 17, 2024, Report Addendum, Meka Vineyard Landslide Hazard Evaluation, Erosion Control Plan (ECP) Permit No. P24-00065, APN: 032-540-034, 4473 Atlas Peak Road, Napa, California (**Exhibit C-2**).
- David Steiner, CPESC, CPSWQ, February 29, 2024, Soil Loss Analysis, Revised, Proposed New Vineyard Development, Meka Vineyards, 4473 Atlas Peak Road Napa, CA 94588, 032-540-034 (**Exhibit D**).
- RCS and Associates LLC, September 25, 2023, Technical Memorandum, Results of Napa County Water Availability Analysis for Meka Vineyard Development Project, 4473 Atlas Peak Road, Napa, CA 94558, APN 032-540-034 (**Exhibit E-1**).
- RCS and Associates LLC, June 12, 2024, Addendum Memorandum, Results of Napa County Water Availability Analysis for Meka Vineyard Development Project, 4473 Atlas Peak Road, Napa, CA 94558, APN 032-540-034 (**Exhibit E-2**).
- David Steiner, CPESC, CPSWQ, February 29, 2024, Hydrologic Analysis, Revised, Proposed New Vineyard, Meka Vineyard, 4473 Atlas Peak Road, Napa, CA 94558, 032-540-034 (**Exhibit F**).
- Project Revision Statement
- Site inspection conducted by Napa County Planning, Building and Environmental Services staff Donald Barrella and Alexei Belov on April 3, 2024.
- Napa County Geographic Information System (GIS) sensitivity maps/layers.

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

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

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

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

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



Signature

September 11, 2025

Date

Donald Barrella

Printed Name

Napa County Planning, Building and Environmental Services

ENVIRONMENTAL CHECKLIST FORM

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
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-c. The project site is located approximately 4 miles south/southeast of Sage Canyon Road (State Route 128), approximately 2 miles west of Capelle Valley Road (State Route 128), approximately 2.5 miles west/northwest of Monticello Road (State Route 121), and approximately 5 miles east of Silverado Trail, which are Napa County-designated Viewshed roads (Napa County GIS, Viewshed roads and Scenic Corridors Layers; Baseline Data Report, Chapter 12, 2005). The project site is not located within the vicinity of an officially designated state scenic highway; the site is located at least 2 miles from State Route 128, which is listed as eligible (Napa County GIS Road Layer; California State Scenic Highway System Map). The project site includes existing residential uses and open space, and there is existing vineyard on the adjacent properties to the north and east. The project site is in the Napa Valley AW (Agricultural Watershed) zoning district which is dominated by vineyards and typifies the visual character of the area (Napa County GIS, Zoning Districts Layer).

The project site is not located on a prominent hillside. The southwestern extent of the project area, encompassing approximately 1-acre located in the southwestern corner of Block C is located along a major ridgeline (Napa County GIS Ridgelines layer; Napa County Baseline Data Report, Chapter 12, map 12-3, 2005). The site is not located near a scenic vista. There are also no significant rock outcroppings or geologic features on the project site that would be impacted by the proposed project. Twelve trees within proposed vineyard Blocks A and C would be removed with the proposed project; all trees along Atlas Peak Road frontage would remain.

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

Regarding historic buildings see **Section V (Cultural Resources)** for additional disclosures, assessment and mitigation. While there is an approximate 970 square-foot unkempt house or cabin that would be removed to accommodate the vineyard development, based on the characteristics of the existing structure it is unlikely it has any historic significance. While it is unlikely that the existing structure/cabin is historically significant, the project archaeologist has acknowledged that an architectural study was outside the scope of their review; therefore, **Mitigation Measure CUL-1** would be implemented. Given the structure is located over 500 feet from and is partially screened by Atlas Peak Road, and the structure's small size, and the project site's location, it does not provide an aesthetic resource to the site or surrounding area that would be affected by the proposed project.

- d. Proposed agricultural operations in the project site would require some lighted nighttime activities consistent with the nighttime activity already occurring in the project site and in the surrounding area, which includes vineyard and agricultural uses. Lighting would be in the form of headlights or downward direction lights on equipment being used during nighttime harvest. The proposed project would include harvest activities (typically occurring in September), that could include nighttime activity (typically from 2 a.m. to 10 a.m.) approximately six to eight days per year. The proposed project would include sulfur applications that could occur between 10 p.m. and 7 a.m., approximately 12 times per year. Although some nighttime activity would occur for limited periods, the proposed project would not introduce a new source of substantial light or glare, and the type of nighttime lighting would be consistent with existing project site uses and surrounding land uses. Therefore, the proposed project would result in a less-than-significant impact.

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

Discussion

- a. The project site is not mapped as Prime Farmland, Unique Farmland or Farmland of Statewide Importance by the California Department of Conservation. The project site is mapped as farmland of local importance (Blocks A and B) and other/grazing land (Block C) by Napa County (Napa County GIS, Important Farmland Finder). The proposed project would result in an increase in productive agricultural farmland on the project site. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and there would be no impact.
- b. The project site has an Agriculture, Watershed & Open Space designation and is zoned Agricultural Watershed (Napa County GIS Zoning Layer). Therefore, the establishment of vineyard totaling approximately 26 gross acres with approximately 19.8 net planted acres is consistent with project site's land use and zoning designations. The project site does not have a Williamson Act contract mapped with Napa County (California Department of Conservation Important Farmland Finder; Napa County GIS, Williamson Act Parcels). Therefore, implementation of the proposed project would not conflict with the project site's land use designation or a Williamson Act contract. No impact would occur.
- c-d. "Forest Land" is defined in California Public Resource Code Section 12220(g) as "land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." "Timberland" is defined in California Public Resource Code Section 4526 as "land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forests products, including Christmas Trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others." The proposed development area does not contain forest land or coniferous forest (Napa County GIS Zoning Layer). The project site is zoned as AW and is not zoned as forest land as defined in Public Resource Code Section 12220(g), timberland as defined in Public Resource Code Section 4526, or a Timberland Production Zone (TPZ) as defined in Government Code Section 51104(g). Therefore, no impact would occur.
- e. The proposed project would upgrade existing roads to access the vineyards on the project site. Construction of the proposed vineyard would not result in the conversion of existing farmland or forestland in the area to non-agricultural or non-forestland uses. As such, the proposed project would have no impact on agricultural or forest resources of Napa County.

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

Discussion¹

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

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

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

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

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

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

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

Air quality attainment plans are required to be prepared for nonattainment areas both under federal and state law. The most recently adopted air quality plan to address nonattainment issues in the SFBAAB is the 2017 Bay Area Clean Air Plan (Clean Air Plan).³ The Clean Air Plan provides a regional strategy to protect public health and the climate by progressing toward attaining all state and federal air quality standards, eliminating health risk disparities from exposure to air pollution among Bay Area communities, transitioning the region to a post-carbon economy needed to achieve greenhouse gas (GHG) reduction targets for 2030 and 2050, and providing a regional climate protection strategy that will put the Bay Area on a pathway to achieve those GHG reduction targets. The Clean Air Plan includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to SFBAAB residents, such as particulate matter, ozone, and toxic air contaminants (TACs); reduce emissions of methane and other “super-GHGs”⁴ that are potent climate pollutants in the near-term; and decrease emissions of carbon dioxide by reducing fossil fuel combustion.⁵

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

- 1) For each applicable air quality plan, does the project support the primary goals?
- 2) For each applicable air quality plan, does the project include all applicable control measures?
- 3) For each applicable air quality plan, does the project not disrupt or hinder implementation of any control measures?

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

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

Therefore, the proposed project would not conflict with the goals or obstruct implementation of the Clean Air Plan, and potential impacts would be less than significant.

- b. The 2022 BAAQMD Guidelines provide thresholds of significance for air quality impacts from both construction and operation. According to BAAQMD, a project would have a significant impact on air quality if emissions from construction or operation would exceed the thresholds of significance shown in **Table 4**.

Table 4 – BAAQMD Thresholds of Significance for Construction and Operation

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

^a Includes PM emissions from exhaust only.

Sources: BAAQMD CEQA Guidelines April 2023.

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

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

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

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

In order to assess potential air pollutant emissions from the proposed project, a review of the analysis of emissions associated with vineyard development/construction and operations performed for the CEQA analysis of three recent vineyard projects in Napa County was completed: Stagecoach North Vineyards⁶ for an approximately 91-acre vineyard development, KJS and Sorrento Vineyard⁷ for an approximately 98-acre vineyard development, and Le Colline Vineyards⁸ for an approximately 28-acre vineyard development⁹.

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

Table 5 shows the approximate anticipated construction emissions associated with the development of vineyards of the sizes described above. Variations or similarities in construction emissions modeling results between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as construction trips, construction equipment and duration of use/operation. Variations in operational emissions between the three projects can be attributed to the modeling platform and version used, and differences in modeling assumptions and inputs such as operational year and number of vehicle trips generated, level of off-road equipment use in operation, and the use of electric equipment and vehicles.

Table 5 – Emissions from Vineyard Development and Operation

Emissions and Thresholds	Construction Emissions ^A			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North vineyard ^{1 B}	0.08	0.75	0.03	0.03
KJS and Sorrento vineyard ^{2 B}	0.05	0.42	0.02	0.02
Le Colline vineyard ^{3 B}	0.24	2.33	0.10	0.09
Average	0.12	1.17	0.05	0.05
Project Construction Emissions based on Average ^A	3.12	30.34	1.28	1.18
Construction threshold ^A	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions ^{4, 5}			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North 91-acre vineyard operation ^{1 B}	0.01	0.08	0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ^{2 B} (pounds per acre per day)	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ^{3 B}	<0.01	<0.01	<0.01	<0.01
Average ^A	<0.01	0.03	<0.01	<0.01
Project Operational Emissions based on Average ^A	0.08	0.76	0.08	0.04
Operational threshold ^A	54	54	82	54
Significant?	No	No	No	No
Emissions and Thresholds	Operational Emissions ^{4 C}			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Stagecoach North 91-acre vineyard operation ^{1 C}	<0.01	0.01	<0.01	<0.01
KJS and Sorrento 98-acre vineyard operation ^{2 C}	<0.01	<0.01	<0.01	<0.01
Le Colline 28.5-acre vineyard operation ^{3 C}	<0.01	<0.01	<0.01	<0.01
Average ^C	<0.01	<0.01	<0.01	<0.01
Project Operational Emissions based on Average ^C	0.01	0.14	0.01	<0.01
Operational threshold ^C	10	10	15	10
Significant?	No	No	No	No

1 As identified in Stagecoach North EIR

2 As identified in KJS and Sorrento EIR

3 As identified in Le Colline Vineyard EIR

4 Includes dust and exhaust emissions

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

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

A – Pounds per day

B – Pounds per acre per day

C – Tons per year

6 #P18-00446-ECPA, November 2022, SCH #2019100250, certified July 10, 2023.

7 #P17-0432-ECPA, March 2023, SCH #2018092042, certified November 3, 2023.

8 #P14-00410-ECPA, December 2022, SCH #2016042030.

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

The proposed project involves the clearing of vegetation, earthmoving and land contouring, and installation and maintenance of erosion control measures associated with the development of approximately 26.0 gross acres of vineyard. During construction, vineyard installation is anticipated to generate up to 30 round trips per day. A list of project-specific construction equipment was not provided by the applicant; therefore, typical vineyard construction equipment is anticipated for the proposed project, including bulldozers, excavators, loaders, haul trucks and a water truck.

Daily construction emissions associated with the proposed project were estimated using the average pounds per day of the three vineyard projects described above and are shown in **Table 5**. As shown in **Table 5**, short-term construction emissions associated with the proposed project would be well below the BAAQMD's daily construction thresholds.

Once completed, primary project operations would include activities such as vineyard pruning, weed and pest control, and harvest. During peak harvest season, operations are anticipated to generate up to 20 round trips per day, including grape hauling trucks. Vineyard operations would be similar to the other three vineyard projects discussed above and the project proposes to develop a vineyard in a smaller area than two of the projects shown in **Table 5**. Therefore, operational emissions associated with the proposed project would be less than those shown in **Table 5** and well below both the daily and annual thresholds.

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

Air Quality – Conditions of Approval:

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

- a. 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.
- b. Water all exposed surfaces (e.g., parking areas, staging areas, soil piles, grading areas, and unpaved access roads) two times per day.
- c. Cover all haul trucks transporting soil, sand, or other loose material offsite.
- d. 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.
- e. All vehicle speeds on unpaved roads shall be limited to 15 mph.
- f. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- g. 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.
- h. Unpaved roads providing access to sites located 100 feet or farther from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- i. 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.
- j. 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 FAQ¹⁰ or the PERP website¹¹.

Installation of the proposed project is expected to generate emissions that are below the thresholds presented in **Table 5**, 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 5** during both installation and operation (see **Section XVII [Transportation]** for anticipated project trips). Therefore, implementation of the proposed project would result in less-than-significant air quality impacts and would not conflict with or obstruct implementation of an air quality plan or result in cumulatively considerable effects.

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

¹⁰ http://www.arb.ca.gov/portable/perp/perpfaq_04-16-15.pdf

¹¹ <http://www.arb.ca.gov/portable/portable.htm>

The project site is located in a rural setting where surrounding parcels are generally undeveloped non-native grasslands and woodlands interspersed with vineyards, wineries, and rural residences. The project site consists of approximately 96.6 acres of land and existing improvements including a residence and related infrastructure, an abandoned cabin, a driveway and dirt road, and three groundwater wells and three developed springs. The closest schools are located over 7.5 miles southwest of the project site within the City of Napa (Napa County GIS, Schools Layer). The closest offsite residence is located approximately 150 feet southeast of the project site, the next closest residence is located over 450 feet to the east.

During installation of the ECP, vineyard planting, and subsequent vineyard operations, TACs and odors would be created through the use of construction, grading, and farm equipment (e.g., tractors, trucks, bulldozers, and an excavator). These sources would be temporary and/or seasonal in nature and would occur over 7.5 miles from the closest school and approximately 150 feet from the nearest rural residence, providing dilution of pollutants and odors. For the reasons identified above, the proposed project would not expose sensitive receptors or a substantial number of people to pollutants or objectionable odors. Therefore, these impacts would be less than significant.

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

Discussion

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

- Applied Civil Engineering, June 2024, Meka Vineyard Vegetation Canopy Cover Exhibit (**Exhibit A-3**).
- WRA Environmental Consultants, February 2024, revised June 2024, Biological Resources Reconnaissance Survey, 4473 Atlas Peak Road (APN 032-540-034) Napa County, California (**Exhibit B-1**).
- WRA Environmental Consultants, June 2024, Meka Vineyard Conversion, Napa County ECP - Response to Napa County Comments on Biological Resources (File #P24-00065 ECPA) (**Exhibit B-2**).
- Napa County, Vegetation Clearing and Retention Analysis for Sensitive Domestic Water Supply Watershed (**Exhibit B-3**).

WRA Environmental Consultants conducted an assessment of biological resources present or potentially present in the project site on March 26, April 23, and June 23, 2021, and December 8, 2023. The surveys focused on the proposed development area and immediate surrounding habitat and documented: the presence or potential for special-status plant and animal species, potential substantial adverse effects on sensitive habitats or communities, potential impacts to federal or state protected wetlands and waters of the U.S., and interference with native wildlife species, wildlife corridors, or native wildlife nursery sites.

Prior to conducting the biological surveys, biological information for the project site was obtained from the following sources: the California Department of Fish and Wildlife California Natural Diversity Data Base (CDFW CNDDDB Rare Find), the U.S. Fish and Wildlife Service (USFWS) IPaC resource list for listed species known for the project site's USGS 7.5-minute topographic quadrangle and surrounding eight quadrangles (St. Helena, Chiles Valley, Lake Berryessa, Rutherford, Yountville, Capell Valley, Sonoma, Napa, and Mt. George), and California Native Plant Society (CNPS) Electronic Inventory of Rare or Endangered Plants for the project site's quadrangle and surrounding eight quadrangles.

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

The vegetation types in the proposed development area consists of California black oak forest, toyon chaparral, and non-native grassland. The project site also includes developed areas and springs. The project site was previously subject to the 2017 Atlas Fire and the 2020 LNU Lighting Complex Fire which heavily impacted a number of trees on the project site. The vegetation types and their acreages are shown in **Table 6**.

Table 6 – Vegetation Types in the Project Site and Proposed Development Area¹²

Vegetation Types	Approximate Pre-Project Acres in Project Site ¹	Approximate Acres in Proposed Development Area
California Black Oak Forest	67.1	3.2
Toyon Chaparral	8.9	6.4
Non-native Grassland	19.6	15.7
Total	96.6	25.3

Source: Applied Civil Engineering, June 2024, Meka Vineyard Vegetation Canopy Cover Exhibit (**Exhibit A-3**).

- a. **Special-Status Plants:** Based upon a review of the biological resource databases listed in **Exhibit B-1**, 75 special-status plant species are known to occur within the region of the project site. Of those, 28 have moderate or high potential to occur within the project site including: Henderson's bent grass (*Agrostis hendersonii*), Franciscan onion (*Allium peninsulare* var. *franciscanum*), Napa false indigo (*Amorpha californica* var. *napensis*), bent-flowered fiddleneck (*Amsinckia lunaris*), Rincon manzanita (*Arctostaphylos stanfordiana* ssp. *decumbens*), Clara Hunt's milk-vetch (*Astragalus claranus*), big-scale balsamroot (*Balsamorhiza macrolepis*), narrow-anthered Brodiaea (*Brodiaea leptandra*), Brewer's calandrinia (*Calandrinia breweri*), Holly-leaved ceanothus (*Ceanothus purpureus*), streamside daisy (*Erigeron biolettii*), Greene's narrow-leaved daisy (*Erigeron greenei*), St. Helena fawn lily (*Erythronium helenae*), Nodding harmonia (*Harmonia nutans*), congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*), Sharsmith's western flax (*Hesperolinon sharsmithiae*), bristly leptosiphon (*Leptosiphon aureus*), Jepson's leptosiphon (*Leptosiphon jepsonii*), broad-lobed leptosiphon (*Leptosiphon latisectus*), redwood lily (*Lilium rubescens*), Hoover's lomatium (*Lomatium hooveri*), Cobb Mountain lupine (*Lupinus sericatus*), Heller's bush-mallow (*Malacothamnus helleri*), Mt. Diablo cottonweed (*Micropus amphibolus*), green monardella (*Monardella viridis*), Napa checkerbloom (*Sidalcea hickmanii* ssp. *napensis*), dark-mouthed triteleia (*Triteleia lugens*), and oval-leaved viburnum (*Viburnum ellipticum*). There are no records of special-status plants that occur within the project site and the biological surveys of the proposed development area did not identify any special-status plants or habitat that would support special-status plant species (WRA Environmental Consultants, February 2024, revised June 2024 – **Exhibit B-1**).

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

12 The Applied Civil Engineering, June 2024, Meka Vineyard Vegetation Canopy Cover Exhibit (**Exhibit A-3**) is being utilized for these disclosures and analysis because it more accurately represents the scope and totality of the proposed project. The acreages identified may slightly differ from acreages identified in the property's other various parcel and project reports and assessments, and associated CEQA disclosures/determinations due to the various mapping platforms, spatial characteristics, modeling data, and rounding utilized by the various preparers. Because approximate biological/plant communities, habitats, and project acreages have been corroborated through County GIS mapping, the values disclosed herein are considered by the County to be adequate for CEQA review and disclosure purposes of the subject application.

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

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

The project as proposed would not remove special-status plants and/or populations, which is consistent with the following Napa County General Plan Conservation Element goals, policies, and Zoning Ordinance: General Plan Goal CON-3 as it protects the continued presence of special-status plant species or its habitat; Policy CON-13 in that impacts to special-status habitat can be avoided while allowing for the development of up to approximately 26 acres of agriculture in the project site; Policy CON-17 because the removal and disturbance of a sensitive natural plant community that contains special-status plant species is prevented; and, the purpose and intent of the Conservation Regulations (NCC Chapter 18.108) in that it preserves natural habitat or existing vegetation, and does not adversely affect sensitive, rare, threatened, or endangered plants.

Specific to oak woodland, Napa County General Plan Conservation Element Policy CON-24 requires that oak woodland be maintained to the extent feasible to provide oak woodland and wildlife habitat, slope stabilization, soil protection and species diversity. Policy CON 24c¹⁵, specifically provides for the preservation of oak woodland (on an acreage basis) at a 2:1 ratio where preservation/avoidance of oak woodland is not feasible replacement of oak woodland at a 2:1 ratio is required. NCC Section 18.108.020(D) (Vegetation Removal Mitigation) further requires that the removal of any vegetation canopy cover in the Agricultural Watershed zoning district be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. Oak woodland impacts and mitigation are discussed in Question e below.

Special-Status Animals: Based upon a review of the biological resource databases listed in **Exhibit B-1**, 58 special-status animal species are known to occur within the region of the project site. Of those, four species have a moderate to high potential to occur in the proposed development area, including: olive-sided flycatcher (*Contopus cooperi*), white-tailed kite (*Elanus leucurus*), pallid bat (*Antrozous pallidus*), and fringed myotis (*Myotis thysanodes*). These species are discussed in further detail below (WRA Environmental Consultants, February 2024, revised June 2024 – **Exhibit B-1**). No special-status animals were observed during the surveys; a targeted bat habitat assessment was not performed.

The olive-sided flycatcher is a summer resident in California, wintering in Latin America. It breeds in a variety of forested habitats, typically coniferous forests at higher elevations, but also in mixed forest and woodlands at lower elevations. Breeding habitat is often associated with forest openings and edges, both natural (e.g., meadows, canyons) and man-made (e.g., logged areas). Nests are usually in conifers and placed at variable height on the outer portions of branches. This species forages for insects, usually from prominent tree snags. The project site provides oak forest with tall snags and hard edges (e.g., clearings), and is suitable for nesting.

The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The project site provides suitable year-round habitat for white-tailed kites, including stands of oak forest for nesting and open areas in close proximity for foraging. This species was not observed during site visits but could occur on-site in the future.

The pallid bat is widely distributed throughout western North America and occurs in various habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented within snags and basal hollows of conifers, and within bole cavities in oak trees. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas. Trees within the project site (e.g., larger, more aged oaks) may contain cavities or snags suitable for roosting by this species, and there are CNDDDB occurrences in the vicinity.

The fringed myotis ranges throughout much of western North America. This species is found in desert scrubland, grassland, sage-grass steppe, old-growth forest, and subalpine coniferous and mixed deciduous forest. Oak and pinyon-juniper woodlands are most commonly used. The fringed myotis roosts in colonies from 10 to 2,000 individuals, although large colonies are rare. Caves, buildings, underground mines, rock crevices in cliff faces, and bridges are used for maternity and night roosts, while hibernation has only been documented in buildings and underground mines. Tree-roosting has also been documented in Oregon, New Mexico, and California. Trees within the project site (e.g., larger, more aged oaks) may contain cavities or exfoliating bark suitable for roosting.

In addition to the two special-status bird species discussed above, other migratory birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Game Code may also nest onsite, as the project site contains a variety of nesting habitat. Temporary and intermittent increases in noise levels during construction may cause nest abandonment and death of young or loss of reproductive potential at active nests located near project activities. Pallid bats and fringed myotis also have the potential to be impacted during removal of the 12 trees during project construction. These are considered potentially significant impacts.

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

To reduce potentially direct and indirect significant impacts on special-status and protected bird species to a less-than-significant level, **Mitigation Measure BIO-1** would be implemented.

Mitigation Measure BIO-1: The owner/permittee shall revise Erosion Control Plan #P24-00065-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 September 15 – NCC Section 18.108.027(C), and bird breeding and nesting seasons), a qualified biologist (defined as knowledgeable and experienced in the biology and natural history of local avian resources with the potential to occur at the project site) shall conduct a preconstruction surveys for nesting birds within all suitable habitat in the development area, and where there is potential for impacts adjacent to the development area (typically within 500 feet of project activities). The preconstruction survey shall be conducted no earlier than 7 days prior to when vegetation removal and ground disturbing activities are to commence. Should ground disturbance commence later than 7 days from the survey date, surveys shall be repeated. A copy of the survey shall be provided to the Napa County Conservation Division and the California Department of Fish and Wildlife (CDFW) prior to commencement of work.
- b. After commencement of work if there is a period of no work activity of 7 days or longer during the bird breeding season, surveys shall be repeated to ensure birds have not established nests during inactivity.
- c. In the event that nesting birds are found, the owner/permittee shall identify appropriate avoidance methods and exclusion buffers in consultation with the County Conservation Division and the U.S. Fish and Wildlife Service (USFWS) and/or CDFW prior to initiation of project activities. Exclusion buffers may vary in size, depending on habitat characteristics, project activities/disturbance levels, and species as determined by a qualified biologist in consultation with County Conservation Division and the USFWS and/or CDFW.
- d. Exclusion buffers shall be fenced with temporary construction fencing (or the like), the installation of which shall be verified by Napa County prior to the commencement of any earthmoving and/or development activities. Exclusion buffers shall remain in effect until the young have fledged, or nest(s) are otherwise determined inactive by a qualified biologist.
- e. Alternative methods aimed at flushing out nesting birds prior to preconstruction surveys, whether physical (i.e., removing or disturbing nests by physically disturbing trees with construction equipment), audible (i.e., utilizing sirens or bird cannons), or chemical (i.e., spraying nesting birds or their habitats) would be considered an impact to nesting birds and is prohibited. Any act associated with flushing birds from project areas should undergo consultation with the USFWS/CDFW prior to any activity that could disturb nesting birds.

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

Mitigation Measure BIO-2: The owner/permittee shall revise Erosion Control Plan #P24-00065-ECPA prior to approval to include the following measures to minimize impacts associated with the potential loss and disturbance of special-status bat species:

- a. A Qualified Biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying) shall conduct a passive bat habitat assessment in order to identify suitable bat habitat trees within the project area: the preconstruction survey shall be conducted no earlier than 14 days prior to vegetation removal and ground disturbing activities are to commence. If the habitat assessment determines that trees proposed for removal contain suitable bat habitat, the following shall apply to potential bat habitat trees:
 - i. August 31 through October 15, and March 1 to April 15: Under the supervision of a qualified biologist (defined as having demonstrable qualifications and experience with the particular species for which they are surveying), bat habitat trees shall be removed or trimmed in a two-phased system conducted over two consecutive days. The first day (in the afternoon), limbs and branches will be removed by a tree cutter using chainsaws only. Limbs with cavities, crevices and deep bark fissures will be avoided, and only branches or limbs without those features will be removed. On the second day, the entire tree will be removed. All felled trees shall remain on the ground for at least 24 hours prior to disposal to allow any present bats within the trees to escape.
 - ii. Bat habitat tree removal or trimming between October 16 and February 28/29 of the following year or between April 16 and August 30: A qualified biologist shall conduct pre-construction survey within 14 days of project initiation to determine absence or presence of special-status bat species. A copy of the survey results shall be provided to the County Planning Division and CDFW prior to commencement of work. If special-status bat species are not present removal can proceed as prescribed. If bats are found to be present a plan for removal or exclusion will be developed by a qualified biologist in conjunction with the County Planning Division and CDFW. The removal or exclusion plan shall be reviewed and authorized by the County Planning Division and implemented prior to commencement of the ECPA.

- b-c. No wetland or riparian vegetation habitat has been identified in the project site (WRA Environmental Consultants, June 2024 – **Exhibit B-2**). Two unnamed USGS blue-line streams are located approximately 3,100 feet southeast and 850 feet south of the project site. No drainages occur within the proposed development area; therefore, no impact would occur. The proposed project has also been designed to maintain existing soil loss (sedimentation) and hydrologic/runoff characteristics (i.e., result in no net increase in soils loss or runoff as compared to existing conditions). Therefore, the proposed project would not result in a significant impact to riparian habitat, wetlands or other sensitive natural community.
- d. Wildlife corridors are natural areas interspersed with developed areas that are important for animal movement, increasing genetic variation in plant and animal populations, reduction of population fluctuations, and retention of predators of agricultural pests and for movement of wildlife and plant populations. Wildlife corridors have been demonstrated to not only increase the range of vertebrates including avifauna between patches of habitat but also facilitate two key plant-animal interactions: pollination and seed dispersal. Corridors also preserve watershed connectivity. Corridor users can be grouped into two types: passage species and corridor dwellers. The data from various studies indicate that corridors should be at least 100 feet wide to provide adequate movement for passage species and corridor dwellers in the landscape.

Construction activities could result in temporary barriers to wildlife movement, but these are not expected to be significant because they are temporary and because of the limited scale of the project. At the landscape-linkage scale, the project site is located within a mapped, course-scale corridor that provides connectivity between southern and northern Napa County. The proposed project would remove existing natural land covers on-site and result in less potential movement area overall. However, most of the project site would remain undeveloped, including most of the site's California black oak forest in addition to some areas of chaparral. More specifically, a corridor of black oak- forest oriented roughly north south would remain intact, resulting in direct connectivity with similar habitats on neighboring properties to the north and south. This on-site corridor would be approximately 750 feet wide at its narrowest point, which would be more than sufficient to allow for continued wildlife movement. From east to west existing movement patterns would generally be maintained because of Atlas Peak Road and existing vineyard about the eastern side of the project site. As per the proposed project's site and fencing plan, the corridor area would not be interrupted by wildlife exclusion fencing or other similar potential movement barriers. For these reasons the proposed project would not lead to significant impacts to habitat fragmentation in the region, significant species exclusion, or a significant change in species composition in the region.

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

Wildlife exclusion fencing would only be installed around the proposed vineyard Blocks A and B as a unit and Block C as a unit, and it would not result in significant impacts to wildlife movement and use. In order to ensure that wildlife exclusion fencing is installed in a manner that is consistent with the biologist and CDFW recommendations to minimize impacts to wildlife movement, the following conditions shall be implemented, should the project be approved.

Fencing – Conditions of Approval:

The owner/permittee shall revise Erosion Control Plan #P24-00065-ECPA prior to approval to include the following components in the fencing design notes and details:

- a. 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.
 - b. Exit gates shall be installed at the corners of deer fencing to allow trapped wildlife to escape.
 - c. Any modifications to the location of wildlife exclusion fencing as specified in Erosion Control Plan #P24-00065-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.
- e. Specific to the portion of the project area that is located in the Milliken Reservoir Sensitive Domestic Water Supply Drainage, pursuant to NCC Section 18.108.027(B) (Sensitive domestic water supply drainages – Vegetation Clearing) a minimum of 70% of the tree canopy cover and a minimum of 40% of the grass/brush cover existing on the parcel in 1993 is required to be retained as part of the project. Based on information provided in the ECPA (**Exhibit B-3**), approximately 1.5-acres of grass/brush cover was located in the southwestern portion of the project site that is located in the Milliken Reservoir watershed. In 1993, this area contained 1.5 acres of grass/brush cover. The project would remove 0.9-acres of brush/shrub cover subject to Section 18.108.027(B), which would result in the retention of 40% of the brush/shrub cover present in 1993 in the Milliken Reservoir Drainage. There is no tree canopy in this area that would be subject to Section 18.108.027(B). Therefore, the proposed project would be in compliance with Section 18.108.027(B).

Oak woodland is the most common land cover in the County occurring on approximately 167,000 acres (33% of the County's area). Approximately 733 acres of oak woodland or 0.5% of the total area of oak woodland in the County has been cleared for residential and agricultural purposes between 1993 and 2002 (Napa County Baseline Data Report, Biological Resources Section, pages 4-22 and 4-25, Version 1, November 2005). While oak woodland may be one of the most common land covers within the County, its past conversion to

residential and agricultural uses in conjunction with foreseeable oak woodland conversion to agricultural use is considered a potentially significant impact on both a project-specific level and a cumulative level (Napa County General Plan, Draft Environmental Impact Report, Volume 1, Section 5.4 Biological Resources, Pacific Municipal Corporation, February 2007).

NCC Section 18.108.020(C) (General Provisions: Vegetation Retention Requirements) requires that parcels within the Agricultural Watershed zoning district retain 70% of the vegetation canopy cover¹⁶ based on the on-site canopy present on June 16, 2016. However, the project site burned in the 2017 Atlas Fire and the 2020 LNU Lightning Complex fires and is therefore subject to NCC Section 8.80.130 (amended through Urgency Ordinance No. 1463), which requires the vegetation canopy cover analysis be based on the June 19, 2018, aerial. Approximately 67.1 acres of tree canopy cover existed in the project site in 2018. The proposed project would retain approximately 65 acres (or 97%) of the canopy cover that existed in 2018 (**Exhibit A-3**), consistent with NCC Section 18.108.020(C) which requires a minimum of 70% preservation. Approximately 2.1 acres of oak woodland canopy (with 12 oak trees greater than 6-inch DBH) would be removed with the proposed project.

Specific to vegetation removal mitigation and preservation NCC Section 18.108.020(D) (Vegetation Removal Mitigation) requires that the removal of any vegetation canopy cover in the Agricultural Watershed zoning district be mitigated by permanent replacement or preservation of comparable vegetation canopy cover, on an acreage basis at a minimum 3:1 ratio. NCC 18.108.020(D) prioritizes where the mitigation replacement and preservation areas should be allowed, whereby the first priority is for onsite replacement and/or preservation areas that generally occur on slopes less than 30% and outside of stream and wetland setbacks. NCC Section 18.108.020(E) (Preserved Vegetation Canopy Cover) requires preserved vegetation canopy cover to be protected (or otherwise enforceable restricted) thorough a perpetual protective easement or deed restriction preserving and conserving the preserved vegetation canopy cover.

For the proposed project to comply with NCC Section 18.108.020(D) and preserve 3 acres of canopy cover (i.e., oak woodland) for every 1 acre impacted, a minimum of 6.3 acres of oak woodland should be preserved on the project site for the approximately 2.1 acres of oak canopy that would be removed in the proposed development area. The ECP prepared for the proposed project identified a 6.3-acre preservation area on the project site on slopes less than 30% and outside of creek setbacks, as shown in **Exhibit A-1** and described in **Mitigation Measure BIO-3**.

While the Project has identified a preservation area consistent with County Code it does not include permeant preservation of the area in the project's scope/description; therefore, it would be inconsistent with Code potentially resulting in a significant cumulative impact. To reduce impacts on the oak woodland biological communities to a less-than-significant level and comply with NCC Section 18.108.020(D) (and Policy CON-24c discussed in Question a), **Mitigation Measure BIO-3** would be implemented.

Mitigation Measure BIO-3: The owner/permittee, prior to approval, shall implement the following measures to minimize impacts to oak woodlands:

- a. The Preservation Area, totaling a minimum of 6.3 acres of oak woodland as shown on Sheet C1 in **Exhibit A-1**, shall be designated as such in a deed restriction or mitigation easement or other means of permanent protection acceptable to the County. Land placed in protection shall be restricted from development and other uses that would degrade the quality of the habitat (including but not limited to conversion to other land uses such as agriculture or urban development and excessive off-road vehicle use that increases erosion) and should be otherwise restricted by the existing goals and policies of Napa County. The owner/permittee shall record the deed restriction or mitigation easement prior to construction or within 90 days of project approval, whichever comes first.
- b. Prior to any earthmoving activities temporary fencing shall be placed at the edge of the dripline of trees to be retained that are located adjacent to the proposed development area (typically within approximately 50 feet of the proposed development area). The precise locations of said fences shall be inspected and approved by the Planning Division prior to the commencement of any earthmoving activities. No disturbance, including grading, placement of fill material, storage of equipment, etc. shall occur within the designated protection areas for the duration of erosion control plan and vineyard installation.
- c. The owner/permittee shall refrain from severely trimming the trees (typically no more than 1/3rd of the canopy) and vegetation to be retained adjacent to the proposed development area.
- d. In accordance with County Code Section 18.108.100 (Erosion hazard areas – Vegetation preservation and replacement) trees that are inadvertently removed that are not within the boundary of the project and/or not identified for removal as part of #P24-00065-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.

¹⁶ 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)."

With implementation of **Mitigation Measures BIO-1** through **BIO-3** and the identified fencing condition of approval, the proposed project would have less-than-significant impacts on special-status plants and wildlife, wildlife movement and result in conformance with policies protecting biological resources in the Napa County General Plan and Conservation Regulations. Further, as discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, under existing conditions, the annual soil loss is anticipated to average 16.43 tons per acre across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, soil loss is anticipated to total 11.01 tons per acre per year, or a reduction of approximately 33% as compared to existing conditions. Therefore, the findings can be made that highest biological and water quality protections have been incorporated into the project, as proposed, with incorporation of **Mitigation Measures BIO-1** through **BIO-3** and standard conditions of approval, consistent with applicable Napa County General Plan Policies and NCC Chapter 18.108, resulting in less-than-significant impacts.

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

	Potentially Significant Impact	Less Than Significant Impact With 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 Public Resources Code 21080.3.1 (Assembly Bill 52 - Gatto).

The following report was utilized in this analysis and is incorporated herein by reference, in addition to Napa County GIS archeological sensitive areas and archeological sites layers: Archeological Resource Service, December 2022. Archaeological Resource Management Report for the Meka Vineyard Development at 4473 Atlas Peak Road, Napa County, CA (APN 032-540-034) (contents confidential).

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

- a-b. The cultural resources study (Archaeological Resource Service, 2022) identified four previously unrecorded sites and/or features in the project site and in the vicinity of the proposed development area: the Meka Vineyard BRM Site; Stone Wall, Trash Scatter #1; and the Meka Vineyard Stone Quarry Site. The project as designed avoids these resources and provides a minimum 10-foot buffers, as recommended in the cultural report. None of the resources would be threatened by the proposed project and no impacts are expected to occur during vineyard development.

In addition to the above resources there is an approximate 970 square-foot run-down house or cabin located in the southwest portion of Block A, that would be removed to accommodate the vineyard development. Historic maps and resources of Napa County indicate that it has largely been associated with agricultural activities since its earliest years of occupation. From the mid-19th century through the early 20th century, the parcel was part of the 120-acre property of Albert V. Evans (Haas 1876; Buckman 1895), who lived at the property until his death in 1907. Other features of parcel occupation include two abandoned corrals covered by tall, dense vegetation and the outline of a former building or structure that is visible in aerial imagery but was unapparent during the survey due to vegetation. There is evidence of prior buildings or structures shown on the 1902 USGS Napa 1:125,000-scale topographic quadrangle, which shows a single building/structure within the parcel (United States Geological Survey 1902). Based on the characteristics of the existing structure (i.e. run-down house or cabin) and of associated trash scatter containing church key cans (1935-late 1960's), a Kenmore washing machine (1949-early 1950's), and an amber glass bottle base (1949), it is unlikely the existing structure is associated with Evans or has any historic significance given the evidence of degradation or removal of past improvements. While it is unlikely that the existing house/cabin structure

is historically significant, the project archaeologist has acknowledged that an architectural study was outside the scope of review; therefore, there is a potential impact on historical resources. The project archaeologist has recommended that the house/cabin be evaluated by a qualified architectural historian prior to being removed, which is included in **Mitigation Measure CUL-1** below, to reduce this impact to a less than significant level.

There is also the possibility that buried archaeological deposits could be present and accidental discovery could occur. The proposed project would be subject to the standard conditions of approval identified below to protect cultural resources that may be discovered accidentally.

Mitigation Measure CUL-1: Before removal of the abandoned structure located in Vineyard Block A under #P24-00065-ECPA, the owner/permittee shall provide documentation to the Napa County Planning, Building and Environmental Services Department that a qualified architectural historian has conducted an evaluation of the structure. If the structure may qualify as a historical resource (as defined in State CEQA Guidelines Section 15064.5), the resource shall be avoided to the extent feasible. Avoidance means that no activities associated with the project that may affect historical/cultural resources shall occur within the boundaries of the resource or any defined buffer zones. If avoidance is not feasible, the County shall consult with appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts on the resource pursuant to PRC Section 21083.2, State CEQA Guidelines Section 15126.4, and County General Plan Policy CC-23. This shall include documentation of the resource and may include data recovery or other measures. The resource and treatment method shall be documented in a professional-level technical report to be filed with the California Historical Resources Information System. Work in the area may commence upon completion of approved treatment and under the direction of the qualified archaeologist.

- 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:

- a. In accordance with CEQA Subsection 15064.5(f), should any previously unknown historic, cultural 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. Historic/cultural artifacts potentially include all by-products of human land use greater than 100 years of age (such as but not limited to outhouse shafts, trash pits, ceramics, glass, nails, etc.).
- b. 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.
- c. All persons working onsite shall be bound by contract and instructed in the field to adhere to these provisions and restrictions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion

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

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

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

- b. The transportation sector is a major end-user of energy in California, accounting for approximately 28% of total statewide energy consumption in 2019 (U.S. Energy Information Administration 2020). In addition, energy is consumed in connection with construction and maintenance of transportation infrastructure, such as streets, highways, freeways, rail lines, and airport runways. California's 30 million vehicles consumed more than 13 billion gallons of gasoline and more than 3 billion gallons of diesel each year (CEC 2024). In Napa County, farm equipment (not including irrigation pumps) accounted for approximately 60% of agricultural emissions in 2014, with the percentage anticipated to increase through 2050 (Napa County 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 would need to comply with State requirements designed to minimize idling and associated emissions, which also minimizes use of fuel. Specifically, idling of commercial vehicles and off-road equipment would be limited to five minutes in accordance with the Commercial Motor Vehicle Idling Regulation and the Off-Road Regulation.¹³ The proposed project would comply with these State requirements and the Air Quality conditions of approval presented in **Section III (Air Quality)**. Napa County has not implemented an energy action plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency or impede progress towards achieving goals and targets, and impacts would be less than significant.

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

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

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|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☐ | ☒ |
| e) Is soil incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ☒ |
| f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☒ | ☐ |

Discussion

- a. The project site could experience potentially strong ground shaking and other seismic related hazards based on the number of active faults in the San Francisco Bay region. The proposed project consists of earthmoving activities associated with the installation of erosion control measures for agricultural development but does not include the construction of new residences or other facilities (i.e., enclosed areas where people can congregate) that would be subject to seismic forces. Additionally, the proposed project would not result in a substantial increase in the number of people to the site. Therefore, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, ground shaking, liquefaction, and landslides and impacts would be less than significant. Additional information supporting this conclusion is identified below.
- i) The project site is not located on an active fault or within an "Earthquake Fault Hazard Rupture Zone" designated by the Alquist-Priolo Earthquake Zoning Act. The closest active faults are the Green Valley fault located approximately 5 miles south of the project site, and the West Napa Fault located approximately 6.5 miles to the west/southwest (Napa County GIS Faults Layer, Napa County General Plan Safety Element). Given the agricultural nature of the proposed project, it would not directly or indirectly cause potential substantial adverse effects involving fault rupture and impacts would be less than significant.
 - ii) Although the project site is located in an area that may be subject to moderate to strong seismic ground shaking potential during an earthquake (California Geological Survey, 2016), the proposed project does not include construction of any new residences or enclosed areas where people would congregate. Therefore, this impact would be less than significant.
 - iii) The project site is not in an area subject to high liquefaction potential. The Napa County General Plan identifies the project site as having very low liquefaction potential (Napa County General Plan-Safety Element, 2023). Further, as noted above, the proposed project would not result in a substantial increase in the number of people or add structures onsite. Therefore, this impact would be less than significant.
 - iv) A geologic report prepared by RGH Consultants (December 2022 – **Exhibit C-1**) identified a landslide deposit located within proposed vineyard Block A. The project proposes to repair the landslide with a hillside buttress repair, and ripping depths would remain at least 12 inches above any subsurface drainage facilities within the slide, repair as recommended in the geologic report (**Exhibit C-2**). Should the proposed project be approved, the following conditions of approval would be incorporated to ensure that the hillside buttress repair occurs according to plan specifications.

Landslide Repair – Conditions of Approval:

The recommendations for the hillside buttress repair outlined in the geologic report prepared by RGH Consultants (December 2022 – **Exhibit C-1**) shall be incorporated by reference into Erosion Control Plan #P24-00065-ECPA, including specifications for site preparation, stripping, excavations, subsurface drainage, fill quality, fill placement, permanent cut and fill slopes, wet weather grading, and surface drainage.

Given the agricultural nature of the proposed project, the proposed erosion control measures, and the conditions of approval, the proposed project would not directly or indirectly cause potential substantial adverse effects involving landslide potential; a less than significant impact would occur (also see Question c below for additional discussion regarding slope stability and landslides).

- b. Soils in the proposed development area have been classified according to the Soil Survey of Napa County (USDA 1978) as Aiken loam 2 to 15% slopes, Aiken loam, 30 to 50% slopes, Hambright rock-outcrop complex 30 to 75% slopes, and Henneke gravelly loam 30 to 75% slopes. Installation and implementation of the proposed project would involve vegetation removal and earthmoving activities within the proposed development area. Pursuant to NCC Section 18.108.070(L) (Erosion Hazard Areas), earth-disturbing activities (other than installation of winterization measures) cannot be performed between October 1 and April 1; in municipal watersheds like the one that the project site is located in, earth-disturbing activities (other than installation of winterization measures) cannot be performed between September 1 and April 1 pursuant to NCC Section 18.108.027(C). 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) to evaluate potential effects of erosion as a result of the proposed project. The USLE model evaluates the environmental conditions and physical forces that lead to the detachment and potential movement of soil particles through surface erosion. The USLE model does not describe travel distances of soil particles once dislodged. Potential soil loss and sedimentation associated with the proposed agricultural development and operations would primarily be controlled through cover crops with a minimum vegetative cover density of 85% for proposed vineyard Blocks A and B and 75% for proposed vineyard Block C as specified in the ECP. The cover crop provides the ability to trap eroded soils onsite, thereby reducing soil loss and sedimentation potential.

Based on USLE modeling calculations prepared by David Steiner, CPESC, CPSWQ (**Exhibit D**), the proposed conversion of approximately 26 gross acres of vegetation to vineyard 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 total 16.43 tons per acre per year across the proposed development area depending on soil type, slope length, and gradient. Under proposed project conditions, annual soil loss is anticipated to total 11.01 tons per acre per year, or a reduction of approximately 33% as compared to existing conditions.

Table 7 – USLE Soil Loss Analysis

Vineyard Transect ID	Pre-project Soil Loss (tons/acre/year)	Post-project Soil Loss (tons/acre/year)	Difference	Percent Change (approximate)
Block A North	0.73	0.69	-0.04	-5%
Block A Mid	3.15	3.40	+0.25	+8%
Block A South	1.85	1.60	-0.25	-14%
Block B	0.86	0.70	-0.16	-19%
Block C East	5.79	2.16	-3.63	-63%
Block C West	4.05	2.46	-1.59	-39%
Total	16.43	11.01	-5.42	-33%

Source: Applied Civil Engineering, February 2024, Soil Loss Analysis, Revised Proposed New Vineyard Development Meka Vineyards 4473 Atlas Peak Road Napa, CA 94588 032-540-034 (**Exhibit D**).

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

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

Erosion and Runoff Control (i.e., Hydromodification) Installation and Operation – Conditions of Approval:

The following conditions shall be incorporated by reference into Erosion Control Plan #P24-00065-ECPA pursuant to NCC Chapter 18.108 (Conservation Regulations):

- a. 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, silt fence and/or straw wattle sediment barriers, erosion control blankets, water bars, straw mulch, rolling dips, rock rip-rap, energy dissipaters, and a permanent cover crop (or adequate mulch cover applied annually), shall be installed no later than September 15 during the same year that initial vineyard development occurs. This requirement shall be clearly stated on the final Erosion Control Plan. Additionally, pursuant to NCC Section 18.108.135 "Oversight and Operation" the qualified professional that has prepared this erosion control plan (#P24-00065-ECPA) shall oversee its implementation throughout the duration of the proposed project, and that installation of erosion control measures, sediment retention devices, and hydromodification facilities specified for the vineyard have been installed and are functioning correctly. Prior to the first winter rains after construction begins, and each year thereafter until the proposed project has received a final inspection from the county or its agent and been found complete, the qualified professional shall inspect the site and certify in writing to the planning director, through an inspection report or formal letter of completion verifying that all of the erosion control measures, sediment retention devices, and hydromodification facilities required at that stage of development have been installed in conformance with the plan and related specifications, and are functioning correctly.
- b. Cover Crop Management/Practice: The permanent vineyard cover crop shall not be tilled (i.e., shall be managed as a no-till cover crop) for the life of the vineyard and the owner/permittee shall maintain a plant residue density of a permanent cover crop to achieve minimum densities of 85% for proposed vineyard Blocks A and B, and 75% for proposed vineyard Block C. Cover crop may be disced between rows and sprayed under vines or otherwise cultivated after April 1; after three years a permanent, no-till cover shall be established. Should the permanent no-till cover crop need to be replanted/renewed during the life of the vineyard, cover crop renewal efforts shall follow the County "Protocol for Replanting/Renewal of Approved Non-Tilled Vineyard Cover Crops" July 19, 2004, or as amended.

It is not expected that land preparation activities associated with the proposed vineyard, such as removal of rocks from the soil profile, would substantially affect the USLE modeling results. The USLE model evaluates the environmental conditions and physical forces that

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

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

- c. As discussed above, there is a landslide deposit located in proposed vineyard Block A which would be repaired with a hillside buttress repair based on recommendations by RGH in the geologic study (**Exhibits C-1 and C-2**). The proposed development area is not in an area prone to ground failure or liquefaction. The proposed vineyard development is not expected to cause any significant decrease in slope stability nor any increase in erosion associated with landslide processes. Therefore, the proposed project impacts of on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse would be less-than-significant.
- d. Soils in the proposed development area exhibit a low to moderate shrink-swell potential (USDA, 1978). Furthermore, no structures are proposed as part of the project and expansive soils pose little risk to vineyards and related agricultural improvements. Therefore, there would be no impacts associated with expansive soils.
- e. The proposed project involves the development of a vineyard. No septic tanks or alternative wastewater disposal systems are needed or proposed for the proposed project. Therefore, no impact would occur with regard to soils supporting septic tanks or alternative wastewater disposal systems.
- f. The proposed project would not destroy any unique geologic features on the project site. Due to the nature of the soils in the project site and the nature of the proposed project (which would involve a relatively shallow vineyard), the probability of encountering paleontological resources within the project site is minimal. Furthermore, project approval, if granted, would be subject to the standard conditions described below that would avoid and reduce potential paleontological resource impacts. Therefore, impacts to geological 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:

- a. In the event that a discovery of a bones, true, and/or trace fossils are discovered during ground disturbing activities, all work within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that should be followed before ground disturbing activities are allowed to resume at the location of the find.
- b. 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 Bay Area Air Quality adopted updated thresholds of significance for climate impacts: CEQA Thresholds for Evaluating the Significance of Climate Impacts, Bay Area Air Quality April 2022. 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). The updated thresholds to evaluate GHG and climate impacts from land use projects are qualitative and geared toward building and transportation projects. Per the BAAQMD, all other projects should be analyzed against either an adopted local Greenhouse Gas Reduction Strategy (i.e., Climate Action Plan (CAP)) or other threshold determined on a case-by-case basis by the Lead Agency. If a project is consistent with the State's long-term climate goals of being carbon neutral by 2045, then a project would have a less-than-significant impact as endorsed by the California Supreme Court in *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204).

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

In July 2015, the County re-commenced preparation of the CAP to: i) account for present day conditions and modeling assumptions (such as but not limited to methods, emission factors, and data sources), ii) address the concerns with the previous CAP effort as outlined above, iii) meet applicable State requirements, and iv) result in a functional and legally defensible CAP. On April 13, 2016, the County, as 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>. However, the County's draft CAP was placed on hold, when the Climate Action Committee (CAC) began meeting on regional GHG reduction strategies in 2019. The County is currently preparing an updated CAP to provide a clear framework to determine what land use actions will be necessary to meet the State's adopted GHG reduction goals, including a quantitative and measurable strategy for achieving net zero emissions by 2045.

In the absence of quantitative GHG thresholds from BAAQMD or a qualified CAP for the County, construction and operational GHG emissions from the project are evaluated against the 1,100 metric tons (MT) per year GHG threshold from the neighboring Sacramento Metropolitan Air Quality Management District (SMAQMD). While air quality emission thresholds are difficult to apply across air districts due to the regional nature of air quality impacts, GHG emission impacts are global in nature. Therefore, the use of neighboring air district thresholds is an adequate evaluation given the absence of GHG thresholds from BAAQMD or a qualified CAP for the County.

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

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

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

The County requires project applicants to consider methods to reduce GHG emissions consistent with Napa County General Conservation Element Plan Policy CON-65e. Pursuant to State CEQA Guidelines Section 15183, this assessment focuses on impacts that are "peculiar

to the project,” rather than the cumulative impacts previously assessed, because this Initial Study assesses a project that is consistent with an adopted General Plan for which an EIR was prepared.

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

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

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

Construction Emissions:

Construction emissions associated with vineyard development projects include emissions from fuel used in construction equipment and vehicle trips used to develop and prepare the development area and plant vineyard. As discussed in **Section III (Air Quality)**, three County Certified CEQA documents assessed and analyzed potential air quality and GHG emissions associated with vineyard development. Within those EIRs potential GHG emissions associated with construction equipment were calculated and disclosed. An estimation of potential construction equipment emissions per acre of vineyard development was derived using the highest emissions results of the three projects; the KJS EIR anticipated approximately 1,880 metric tons (MT) CO_{2e} of construction emissions for a 142-acre vineyard development, resulting in approximately 19.2 MT CO_{2e} of construction equipment emissions per acre of vineyard development.¹⁸ Using this emission factor it is anticipated that Construction Equipment Emissions associated with the proposed project’s 26 gross acres of vineyard development would be approximately 500.3 MT CO_{2e} (26 acres multiplied by 19.24 MT CO_{2e}). Construction emissions are seasonal in nature and would only occur during the dry season (April-October) of any given year. While BAAQMD has no quantitative GHG threshold for comparison, the project’s construction equipment emissions are well below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e}, and therefore are less than significant.

Operational Emissions:

Emissions associated with the operation of the vineyard capture ongoing emissions from the use of equipment and vehicles to maintain and farm the vineyard, including vehicles (such as haul trucks, pick-up trucks) and worker vehicle trips. The three vineyard development project analyses referenced above also assessed ongoing vineyard operation emissions associated with vehicles and equipment. Estimated potential operational emissions per acre of vineyard development were derived using the highest emissions results of the three projects; the Stagecoach North Vineyard EIR estimated approximately 322 MT CO_{2e} of operational emissions per year for a 116-acre vineyard, resulting in approximately 2.77 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission rate, it is anticipated that operational equipment emissions associated with the proposed the proposed 26-acre agricultural development would be approximately 72 MT CO_{2e} per year (26 multiplied by 2.77 MT CO_{2e}). Operational emissions are also seasonal in nature, mostly occurring during the harvest season. While the BAAQMD’s qualitative operational thresholds do not apply to projects such as the proposed project which do not generate emissions from building energy and transportation, the project’s operational emissions can be considered less than significant when compared to SMAQMD’s operational threshold of 1,100 MT CO_{2e} per year.

Potential construction equipment emissions per acre of vineyard development were derived using the highest emissions results from these EIRs; the Stagecoach North Vineyard EIR anticipated approximately 322 MT CO_{2e} of operational emissions for a 116-acre vineyard, resulting in approximately 2.77 MT CO_{2e} of operational emissions per acre of vineyard per year. Using this emission factor, it is anticipated

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

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

that operational equipment emissions associated with the proposed 26-acre agricultural development would be approximately 72 MT CO_{2e} per year (26 multiplied by 2.77 MT CO_{2e}). Like equipment emissions, operational emissions are seasonal in nature, mostly occurring during the harvest season. While BAAQMD does not have a GHG emission threshold for non-building operational emissions, the project's operational equipment emissions can be considered less than significant when compared to SMAQMD's GHG threshold of 1,100 MT CO_{2e}.

Emissions from Change in Vegetation:

Carbon Stock Emissions: Carbon stock emissions resulting from vegetation removal and soil preparation associated with the conversion of approximately 26 acres of existing vegetation to vineyard are shown in **Table 8**. Because there is not yet a universally accepted scientific methodology or modeling method to calculate GHG emissions due to vegetation conversion and soil disturbance, this analysis uses the carbon stock factors from the *Regional Carbon Stock Inventory Report for Napa County* to estimate carbon stock in aboveground vegetation and belowground in the soil in the proposed development area. Utilizing these factors and the acreages of existing vegetation types within the proposed development area, total existing carbon stock emissions for the proposed development area are estimated to be approximately 2,833.7 MT C or approximately 10,390.1 MT CO_{2e} (**Table 8**). This includes carbon stored in aboveground vegetation and belowground in soil. **Table 8** also details the changes in total carbon stock from the existing land uses to the proposed project. Total carbon storage added to the site by the proposed project would be approximately 2,668.1 MT C or approximately 9,783.2 MT CO_{2e}. As shown in **Table 8**, the project would result in an addition of approximately 165.5 MT C or approximately 606.8 MT CO_{2e} in emissions.

Table 8 – Estimated Project Site Carbon Stocks/Storage

Vegetation Type/Carbon Storage	Project Site Acreage ¹	Soil Carbon Storage/Stock per Acre (MT C/acre)	Vegetation Carbon Stock	Total Carbon Storage (MT)	Total Carbon Storage in MT CO _{2e}
Existing					
Vineyard	0.0	17.08	1.78	0	0
Forest ²	67.1	10.87	21.04	2,141.3	7,851.3
Non-native Grassland	19.6	25.08	1.42	519.3	1,904.1
Srubbyland ³	8.9	5.44	14.01	173.1	634.6
Existing Totals				2,833.7	10,390.1
Project					
Vineyard	25.3	17.08	1.78	477.1	1,749.2
Forest ²	63.9	10.87	21.04	2,039.1	7,476.9
Non-native Grassland	3.9	25.08	1.42	103.3	378.9
Srubbyland ³	2.5	5.44	14.01	48.6	178.3
Project Totals				2,668.1	9,783.2
Change in Carbon Stock in Project Site with Project				165.5	606.8

Note: Totals may not add up due to rounding

1 Acreage from **Table 6**

2 Includes California Black Oak forest land cover types

3 Includes Mixed Chaparral land cover types

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

Carbon Sequestration Emissions: Emissions associated with change in carbon sequestration due to vegetation change (i.e., the conversion of existing vegetation to vineyard) have been calculated based on the annual carbon sequestration rates in the CALAND report and are presented in **Table 9**. Sequestration rates include carbon sequestration in both vegetation and soil. While the removal of existing vegetation in the area would reduce carbon sequestration, development of the proposed vineyard would offset some of that reduction as the vineyard would act as a sink for atmospheric CO₂, depending on the longevity of grapevine roots and the quantity of carbon stored in deep roots. Grapevines are photosynthetic plants and therefore have value in terms of carbon capture. Additionally, the use of cover crops between vine rows, which are also photosynthetic plants, tends to result in less soil CO₂ loss from vineyard soils which has been conservatively excluded from the estimates.

As shown in **Table 9**, the project would result in a net increase in carbon sequestration equivalent to approximately 41.1 MT CO_{2e} per year when compared to existing conditions.

Table 9 – Change in Carbon Sequestration in the Project Site

Vegetation Type/Carbon Storage	Project Site Acreage ¹	Carbon Sequestration Rate (MT C/acre/year)	Total Carbon Sequestration (MT CO ₂ e/year)
Existing			
Cultivated	0.0	0.22	0.0
Forest ²	67.1	7.46	500.3
Non-native Grassland	19.6	-4.12	-80.7
Srubbyland ³	8.9	0.82	7.3
Existing Totals			427.0
Project			
Cultivated	25.3 ¹	0.22	5.6
Forest ²	63.9	7.46	476.5
Non-Native Grassland	3.9	-4.12	-16.1
Srubbyland ³	2.5	0.82	2.1
Project Totals			468.1
Change in Carbon Sequestration in Project Site with Project			41.1

Note: Totals may not add up due to rounding

1 Acreage from **Table 6**

2 Includes California Black Oak forest land cover types

3 Includes Mixed Chaparral land cover types

Source: Table compiled by ESA in 2024

Project Emissions:

Based on the above estimates, the proposed project is estimated to result in one-time carbon stock emissions of 606.8 MT CO₂e while the carbon sequestration associated with the project would increase resulting in a reduction in emissions of 41.1 MT CO₂e over the estimated 30-year lifetime of the project, totaling 1,643.7 MT CO₂e emission reductions (**Table 10**). The proposed project would reduce emissions from changes in carbon stock and sequestration by 1,036.8 MT CO₂e over the project's lifetime. Negative emissions shown in **Table 10** are due to an increase in carbon sequestration.

Table 10 – Estimated Overall Project-Related GHG Emissions

Source	MT CO ₂ e
Carbon stock emissions from project vineyard development	606.8
Carbon sequestration emissions from project vineyard development ¹	-1,643.7
Project Total¹	-1,036.8

Note: Totals may not add up due to rounding

1 Estimated over a project lifetime of 30 years

Source: Table compiled by ESA in 2024

The carbon stock and sequestration gained from the proposed project results in an increase in net carbon sequestration associated with the project. Therefore, the proposed project would not have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☐ | ☒ |
| f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires? | ☐ | ☐ | ☒ | ☐ |

Discussion

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

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

No onsite storage of hazardous materials is proposed, and materials would be brought in as needed. Chemical mixing or cleaning and washing of chemical application equipment would occur on the project site at two existing overhead fill stations (**Exhibit A-1**). Fertilizers (i.e., nitrogen, magnesium, boron, and zinc) would be applied via drip and foliar up to three times per year. Mildewcides (i.e., Sonata, paraffinic oil, wettable sulfur, and Regalia) would be sprayed up to six times per year and herbicides (i.e., Lifeline or equivalent) would be sprayed up to four times per year.

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

The proposed development area does not contain aquatic resources (**Exhibits A-2 and B-2**). There are three developed springs that originate from groundwater in the project site; however, these areas are not considered jurisdictional under the Clean Water Act. There are three U.S. Geological Survey (USGS) unnamed blue-line streams located between 850 feet and 3,100 feet to the south/southeast of the project site and a named blue-line stream (Stoney Creek) located between 1,700 feet to 2,300 feet to the north of the project site. The closest significant streams to the project site are located over 2,900 feet to the south and over 2,400 feet to the north of the project site. Therefore, no waterways have the potential to be significantly impacted by the proposed project.

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

Hazardous Materials – Conditions of Approval:

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

- Workers shall follow manufacturers' recommendations on use, storage and disposal of chemical products.
- Workers shall avoid overtopping fuel gas tanks and use automatic shutoff nozzles where available.
- During routine maintenance of equipment, properly contain and remove grease and oils.
- Discarded containers of fuel and other chemicals shall be properly disposed of.
- Spill containment features shall be installed at the project site wherever chemicals are stored overnight.

- 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 wells, 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.

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 to the project site are located over 7.5 miles within the City of Napa (Napa County GIS, Schools Layer). There are no schools within 0.25 miles of the project site. Therefore, no impact would occur.
- d. The project site is not on any of the lists of hazardous waste sites enumerated under Government Code Section 65962.5 (Napa County GIS hazardous facility layer; GeoTracker, 2024). Therefore, no impact would occur.
- e. The project site is neither located within an area covered by an airport land use plan, nor is it within 2 miles of a public, public-use, or private airport (Napa County Airport Land-use Compatibility Plan, 1991). The closest airport to the project site is Capell Valley Airport located approximately 3 miles to the northeast. Therefore, no impact would occur.
- f. During construction, there would be negligible numbers of workers (up to 30 employees) visiting the project site on a temporary basis to implement the project and install vineyards. Up to ten employees would also visit the site on a seasonal basis for subsequent vineyard operations. No road closures would be required to implement the project, and there would not be a permanent substantial increase in the number of people working or residing at or near the project site. Therefore, the proposed project would not impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan, and the impact would be less than significant.
- g. No structures are proposed as part of the project. The project site is located in a State Fire Protection Responsibility Area identified as having very high fire severity (Napa County GIS, Fire Hazard Severity Zone; CalFire 2023). Additionally, the project site was burned in the 2017 Atlas Fire and the 2020 LNU Lightning Complex Fire. However, the risk of fire in vineyards due to the proposed project is low due to the limited amount of fuel, combustibles, and ignition sources that would be present. Vineyards are irrigated and cover crops are typically mowed in May and August, thereby reducing the fuel loads within the vineyard. The removal of vegetation and the management of vineyard may result in an overall reduction of fuel loads within the project site as compared with existing conditions. Therefore, the proposed project would not increase the exposure of people or structures to wildland fires and the impact would be less than significant.

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

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☐ | ☒ |

Discussion

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

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

The project well is located outside the GSA Subbasin and the Milliken Sarco Tulocay (MST) Groundwater Deficient Area: the GSA Subbasin is located over 4 miles to the east of the project site and MST Area is located over 5 miles to the south.

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

To assess the potential impacts of groundwater pumping on hydrologically connected navigable waterways, the County's WAA guidance requires applicants to perform a Tier 3 analysis for new or replacement wells, or discretionary projects that would result in an increase in groundwater demand on existing wells that are located within 1,500 feet of designated "Significant Streams."¹⁹

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

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

The project site is located in the Capell Creek and Milliken Creek watersheds, which flow into the Sacramento River and the Napa River, respectively (**Exhibit D-1**). 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).

There are three U.S. Geological Survey (USGS) unnamed blue-line streams located between 850 feet and 3,100 feet to the south/southeast of the project site and a named blue-line stream (Stoney Creek) located between 1,700 feet to 2,300 feet to the north of the project site. The

¹⁹ Refer to Figure 1: Significant Streams for Tier 3, located at www.countyofnapa.org/3074/Groundwater-Sustainability. The "Significant Streams" and "Significant Streams_1500ft_buffer" GIS layers are published as publicly available open data through the County's ArcGIS Online Account.

closest significant streams to the project site are located over 2,900 feet to the south and over 2,400 feet to the north of the project site. The nearest blue-line streams are located approximately 3,100 feet southeast and 850 feet south of the project site.

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

The proposed project has been designed with site-specific temporary and permanent erosion control measures and features to prevent sediment, runoff, and pollutants from leaving the project site. Agricultural Erosion Control Plan #P24-00065-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 to document that sufficient water supplies are available for a proposed project.

The proposed vineyard would be irrigated using groundwater supplied by two existing on-site groundwater wells (referred to as the New Well and the House Well), and from three on-site developed springs that originate from groundwater located within proposed vineyard Block A, which would be used in combination with the wells. No water for frost protection or heat protection is proposed as part of the project. No municipal water or surface water would be used to irrigate the vineyard.

A Tier 1 and 2 WAA was prepared to determine if the proposed increase in groundwater water demand as a result of the proposed project would result in a significant impact to groundwater supplies (RCS and Associates, September 2023 – **Exhibit E-1**; RCS and Associates, June 2024 – **Exhibit E-2**). The Tier 1 WAA estimates the onsite groundwater recharge and both existing and proposed groundwater use to disclose and assess potential impacts on groundwater in accordance with the WAA Guidance Document adopted by the County on May 12, 2015. The New Well is located within 500 feet of an offsite well and within 1,500 feet of two offsite springs that are used for water supply purposes; therefore, the Tier 2 Well Interface Analysis was prepared. The project wells and the springs are not located within 1,500 feet of a significant stream per Napa County GIS information; therefore, no Tier 3 WAA is needed. (see Figure 2 of **Exhibit E-1**).

Tier 1 Water Availability Analysis: Existing onsite water demands consist of approximately 0.75 AF/yr of groundwater for residential demands and minor landscape irrigation. With the proposed development of 19.8 net acres of new vineyard, water demand would increase by approximately 8.56 AF/yr, for a total onsite water demand of approximately 9.31 AF/yr.

Long-term average groundwater recharge can be estimated as the percentage of rainfall that falls on the project aquifer recharge area that percolates into the underlying aquifer. The percentage of rain that has the potential to infiltrate varies depending on factors such as rates of evaporation and transpiration, soil type and geology that exists at the site, and average annual rainfall. Based on available climatological data, site-specific information, and other available data and analysis relevant to potential recharge, the WAA, which uses an average annual rainfall of 29.93 inches per year over an approximately 91-acre aquifer recharge area within the project site and an 8% deep percolate recharge estimate, estimates the average annual groundwater recharge to be approximately 18.0 AF/yr (see **Exhibit E-1** for details and calculations). The average annual rainfall utilized in the recharge analysis includes times of below-average and above-average rainfall over the past 10 years, and therefore inherently includes drought-year conditions. The estimated annual future groundwater demand (with the proposed project) of 9.31 AF/yr is below the estimated average annual recharge volume of 18.0 AF/yr identified in the WAA.

Tier 2 Water Availability Analysis: According to the County's WAA Guidelines (Napa County, 2015), if a project well is within 500 feet of a non-project well a Tier 2 WAA is required. The Tier 2 WAA also considered springs that originate as groundwater. An offsite well exists within 500 feet of the 'New Well' and two offsite springs (which are used for water supply purposes) exist within 1,500 feet of the New Well (RCS and Associates, September 2023 – **Exhibit E-1** and RCS and Associates, June 2024 – **Exhibit E-2**). No changes in the flows from any of the springs were attributable to the pumping test of the 'New Well' in March 2023 (**Exhibit D-2**). Observations and data discussed in the report support the assertion that the 'New Well' does not have a significant hydraulic effect on the offsite well or springs.

Considering: i) anticipated annual water use of the proposed project and project well groundwater recharge area of approximately 9.31 AF/yr is below the anticipated annual groundwater recharge rate screening criteria (or allocation) of approximately 18.0 AF/yr; ii) there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and iii) incorporation of the standard groundwater management conditions of approval below to reduce potential impacts associated with groundwater use, the proposed project (if approved) would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels.

Groundwater Management, Wells – Condition of Approval:

- a. The Owner/Permittee shall be required (at the permittee's expense) to record well monitoring data (specifically, static water level no less than quarterly, and the volume of water no less than monthly). Such data shall be provided to the County upon request or if the PBES Director determines that substantial evidence indicates that water usage is affecting, or would potentially affect, groundwater supplies. If data indicates the need for additional monitoring, and if the owner/permittee is unable to secure monitoring access to neighboring wells, onsite monitoring wells may need to be established to gauge potential impacts on the groundwater resource utilized for the project. Water usage shall be minimized by use of best available control technology and best water management conservation practices.
 - b. In order to support the County's groundwater monitoring program, well monitoring data as discussed above shall be provided to the County if the PBES Director determines that such data could be useful in supporting the County's groundwater monitoring program. The project well shall be made available for inclusion in the groundwater monitoring network if the PBES Director determines that the well could be useful in supporting the program.
 - c. In the event that changed circumstances or significant new information provide substantial evidence that the groundwater system referenced in the Erosion Control Plan #P21-00312-ECPA would significantly affect the groundwater basin, the PBES Director shall be authorized to recommend additional reasonable conditions on the owner/permittee, or revocation of this permit, as necessary to meet the requirements of the Napa County Code and to protect public health, safety, and welfare.
 - d. No new on-site or off-site water sources (other than those evaluated as part of this ECPA) proposed to be used for the vineyard, including but not limited to wells, imported water, new or existing ponds/reservoir(s) or other surface water impoundments, to serve the vineyard, shall be allowed without additional environmental review, if necessary, and may be subject to a modification to this ECPA. A new Water Availability Analysis shall be required prior to approval of any new water source(s) on the property.
- 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 density minimum densities of 85% for proposed vineyard Blocks A and B and 75% for proposed vineyard Block C, and the application of straw mulch cover on all disturbed areas as needed to achieve the required coverage. These features would slow and filter surface runoff water, thereby minimizing sediment, nutrients, and chemicals from leaving the project site and entering nearby aquatic resources. Refer to **Exhibit F** for details related to the following discussion.

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

A Hydrology Report for the proposed project was prepared by David Steiner, CPESC, CPSWQ (February 2024 – **Exhibit F**). The Hydrology Report used Soil Conservation Service TR-55 modeling to compare the pre- and post-development peak stormwater runoff rates from the proposed development area for the 2-year, 10-year, 50-year, and 100-year, 24-hour design storms. Pre- and post-project runoff calculations for each watershed as summarized in **Table 11**.

The post-development peak stormwater runoff rates for the proposed project and associated improvements were calculated to be less than the pre-development peak stormwater runoff rates. These calculations indicate that the proposed project would not result in increases in peak flow and runoff, 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.

Table 11 – Hydrologic Modeling Calculations (TR-55) Results: Runoff Rates

Watershed	Peak Discharge Flow (cfs) by 24-hour Storm Event Frequency Return Interval (cubic feet/second)			
	2-year	10-year	50-year	100-year
1				
Pre-project conditions	1.69	3.31	5.05	5.79
Post-project conditions	1.69	3.31	5.05	5.79
Change (cfs)	0	0	0	0
Change (%)	0%	0%	0%	0%
2				
Pre-project conditions	2.20	4.06	6.00	6.82
Post-project conditions	2.20	4.06	6.00	6.82
Change (cfs)	0	0	0	0
Change (%)	0%	0%	0%	0%
3				
Pre-project conditions	29.35	60.78	95.13	110.02
Post-project conditions	29.35	60.78	95.13	110.02
Change (cfs)	0	0	0	0
Change (%)	-0%	-0%	-0%	-0%

Source: Applied Civil Engineering, February 2024 (**Exhibit E**)

The project site is not located in an area of a planned stormwater drainage system, nor is it not directly served by a stormwater drainage system. As discussed above, no overall increase in runoff volume or decrease in time of concentration is anticipated under post-project conditions. Furthermore, as discussed in **Section VII (Geology and Soils)**, a reduction in soil loss and sedimentation is anticipated under post-project conditions. Therefore, the proposed project would not contribute a substantial amount of additional runoff to an existing stormwater drainage system or provide substantial additional sources of polluted or sediment laden runoff, resulting in a less-than-significant impact.

In addition, pursuant to NCC Section 18.108.135 (Oversight and Operation) projects requiring an erosion control plan would be inspected by the County after the first major storm event of each winter until the proposed project has been completed and stable for three years to ensure that the implemented erosion control plan is functioning properly.²⁰ Furthermore, pursuant to NCC Section 18.108.140(A)(2) financial securities equaling 125% of the estimated cost of installation of the required erosion and runoff control measures specified in the ECPA located within the County-designated Milliken Reservoir Sensitive Domestic Water Supply Drainage are required to be posted to ensure the all specified measures in the ECPA are implemented to protect domestic water supplies.

- d. The project site is not located within a Federal Emergency Management Agency (FEMA) 100-year flood zone, in a dam or levee failure inundation area, or in an area subject to seiche or tsunami (Napa County GIS FEMA flood zone and dam levee inundation areas layers; Napa County General Plan-Safety Element, 2023). Therefore, no impact would occur.
- e. The proposed project would not have an adverse impact on water quality because the ECPA has been designed to keep polluted runoff and sediment from leaving the project site. As discussed in **Section IX (Hazards and Hazardous Materials)**, the project proposes the use of potentially hazardous materials during implementation activities (i.e., oil, gasoline, and transmission fluids associated with construction equipment) and the application of chemicals (i.e., fertilizers) for ongoing vineyard maintenance. Only federal and/or California approved chemicals would be applied to the vineyard in strict compliance with applicable state and federal law. As discussed in **Sections IV (Biological Resources)** and **IX (Hazards and Hazardous Materials)**, buffers provided in the ECP to area watercourses would facilitate increased water infiltration so that chemicals and potentially hazardous materials associated with project implementation and operation can be trapped and degraded in buffer vegetation and soils to protect water quality. The limited application of agricultural chemicals generally occurring during the non-rainy season would also minimize the amounts of chemicals that could impact onsite 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 5.42 tons per acre per year, have no

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)**.

negative effect on runoff rates, and maintain project site drainage characteristics as compared to existing conditions. The ECPA includes BMPs that are consistent with NCC Section 18.108.080(c), as well as with Regional Water Board guidance from the Storm Water Best Management Practice Handbooks for Construction and for New Development and Redevelopment, and the Erosion and Sediment Control Field Manual.

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

Water Quality – Condition of Approval:

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

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

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

Discussion

- The project site is located on Atlas Peak Road and the nearest established community is Yountville, approximately 5.9 miles southwest of the project site. Existing improvements on the project site include a residence and related infrastructure, an abandoned cabin, a driveway and dirt road, three groundwater wells and three developed springs. Surrounding areas contain agricultural and rural residential areas. Therefore, the proposed vineyard and subsequent vineyard operations are consistent with surrounding land uses and would not physically divide an established community. No impact would occur.
- The project site is zoned as Agriculture, I Watershed and is designed under the Napa County General Plan as Agricultural, Watershed and Open Space. Surrounding parcels are also zoned Agricultural Watershed in the Napa County General Plan Land Use Element. Vineyards and associated improvements are permitted uses under these designations.

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

- The proposed project is consistent with NCC Section 18.108.010, which requires that soil loss and runoff as a result of a project be minimized to protect water quality. As discussed in **Sections VII (Geology and Soils)** and **X (Hydrology and Water Quality)**, the proposed project is anticipated to decrease soil loss and potential sedimentation by approximately 5.42 tons per acre per year and maintain runoff conditions as compared to existing conditions.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development not be greater than predevelopment conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)** the project as proposed would reduce soil loss, sedimentation, and reduce runoff characteristics as compared to existing conditions.
- The proposed project with implementation of **Mitigation Measures BIO-1** through **BIO-3** is consistent with Policies CON-13, CON-16 and CON-17 which require discretionary projects consider and avoid impacts to fisheries, wildlife habitat, and special-status species through evaluation of biological resources, as well as the preservation and protection of native grasslands, sensitive biotic communities, and habitats of limited distribution and no net loss of sensitive biotic communities. A Biological Resources Survey

Report was prepared for the proposed project (**Exhibit B-1**). The project as proposed would minimize potential direct, indirect, and cumulative impacts to special-status species and associated habitat occurring in the project site with implementation of **Mitigation Measures BIO-1** through **BIO-3**. Furthermore, implementation of these measures would not affect the feasibility of the proposed project in that impacts to special-status species and their habitat can be minimized.

- With implementation of **Mitigation Measures BIO-1** through **BIO-3**, the proposed project is consistent with Goals CON-2 and CON-3, which require the continued enhancement of existing levels of biodiversity and protection of special-status species and habitat, and the County Conservation Regulations through preservation of natural habitats and existing vegetation. With these measures and conditions, the proposed project would maintain levels of biodiversity and would avoid impacts to special-status plant and animal species.
- The proposed project is consistent with Policy CON-18, which encourages the reduction of impacts to habitat conservation and connectivity. Wildlife movement would not be impaired.
- With the implementation of **Mitigation Measure BIO-3**, the proposed project is consistent with Policy CON-24, which requires preservation of 2 acres of oak woodland for every 1 acre impacted.
- The project site does not contain wetlands within its boundaries and the proposed project is consistent with Policy CON-30, which encourages the avoidance of wetlands.
- The proposed project is consistent with Policies CON-48 and CON-50c, which require pre-development sediment erosion conditions and runoff characteristics following development to be no greater than pre-project conditions. As discussed in **Section VII (Geology and Soils)** and **Section X (Hydrology and Water Quality)**, with incorporation of the Permanent Erosion and Runoff Control Measures condition of approval, the proposed project would reduce soil loss and sedimentation and would not increase runoff.
- The proposed project is consistent with Policy CON-65b. 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 measure and conditions of approval incorporated, would not conflict with applicable County regulations, policies, or goals and is anticipated to have a less-than-significant impact with respect to applicable County regulations, policies, or goals.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a-b. The project site is not in an area with a known mineral resource of value to the region or state or within a known mineral resource recovery area (Napa County Baseline Date Report, Figure 2-2, 2-3 and Map 2-1, 2005; Napa County General Plan Map, December 2008; Special Report 205, Update of Mineral Land Classification, Aggregate Materials in the North San Francisco Bay Production-Consumption Region, Sonoma, Napa, Marin and Southwestern Solano Counties, California Geological Survey, 2013). The nearest known mineral resources area in Napa County is the Napa Quarry, located approximately 11.7 miles southeast of the project site. The proposed development of vineyard on the project site would not physically preclude future mining activities from occurring. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established	☐	☐	☒	☐

in the local general plan or noise ordinance, or applicable standards of other agencies?

- 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 non-native grasslands and woodlands interspersed with vineyards, wineries, and rural residences. The nearest residence to the project site is located approximately 150 feet southeast of the project site, the next closest residence is located over 450 feet to the east. Additionally, adjacent properties 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 bulldozers, tractors, excavators, backhoes, dump trucks, water trucks, and ATVs and passenger vehicle and/or light trucks. **Table 12** characterizes typical equipment noise levels at a reference distance of 50 feet. As identified in **Table 12**, equipment used for vineyard development could produce a maximum of 89 (A-weighted decibels) dBA at a distance of 50 feet.

Table 12 – Construction Equipment Noise Emission Levels

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

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

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

Table 13 – Estimated Distance to dBA Contours from Construction Activities¹

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

¹ Based on a source noise level of 90 dBA

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

Based on distances to existing residences, noise associated with project construction would be approximately 65-75 dBA at the nearest existing offsite residences.

Noise related to farming activities and equipment typically ranges from 75 dBA to 95 dBA, with an average of approximately 84 dBA (Toth 1979 and Napa County Baseline Date Report, chapter 6, 2005). These noise levels should be reasonably representative of noise levels from wheeled and tracked farm equipment. Noise sources associated with ongoing vineyard operation and maintenance include a variety of vehicles and equipment, such as track and rubber wheel farming tractors and equipment, which would occur on a temporary and seasonal basis. **Table 14** characterizes the typical reduction of farming activity noise levels as the distance increases from the source using a noise source level of 84 dBA.

Table 14 – Estimated Distance to dBA Contours from Farming Activities¹

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

¹ Based on a source noise level of 84 dBA.

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

Based on distances to existing residences, it is anticipated that noise due to operation and maintenance agricultural activities would be between 75-84 dBA at the closest existing offsite residence.

Napa County considers construction noise levels up to 75 dBA during daytime hours (7 a.m. to 7 p.m.) and 60 dBA during nighttime hours (7 p.m. to 7 a.m.) as compatible with residential uses (NCC Section 8.16.080), and ongoing (or established use) noise levels of approximately 55 dBA as compatible with residential uses (NCC Section 8.16.070). As the closest offsite residence would experience construction noise levels of approximately 70 dBA, noise and vibration impacts associated with project development are anticipated to be less than significant. Noise levels from routine operation and maintenance activities at the nearest offsite residence would be 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 Airport Land-use Compatibility Plan, 1991). The closest airfield, Capell Valley Airport, is located approximately 3 miles northeast of the project site. 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, or infrastructure (e.g., water, sewer or utility lines) that would directly or indirectly induce substantial unplanned population growth. Construction and installation activities associated with the proposed project would generate a minimal number of workers to the project site on a temporary basis, and ongoing vineyard operation and maintenance would generate a minimal number of workers to the project site on an ongoing basis. It is anticipated that these workers would come from the existing labor pool in the region. Therefore, the proposed project would not induce unplanned population growth in the project vicinity or greater region, either directly or indirectly. No impact would occur.
- b. The proposed project would not displace any existing housing or people, and it does not involve the construction of new homes. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒

Discussion

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

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

Discussion

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA guidelines § 15064.3 subdivision (b)?	☐	☐	☒	☐

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☒ | ☐ |
| d) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ☒ |
| e) Conflict with General Plan Policy CIR-14, which requires new uses to meet their anticipated parking demand, but to avoid providing excess parking which could stimulate unnecessary vehicle trips or activity exceeding the site's capacity? | ☐ | ☐ | ☐ | ☒ |

Discussion

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

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

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

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

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

Currently, the project site includes a residence and related infrastructure, an abandoned cabin, a driveway and dirt road, three groundwater wells and three developed springs. The project site is accessed from existing private driveways off Atlas Peak Road. Trucks and other equipment would use County roads or State highways for short periods during construction and subsequent vineyard operation.

The proposed project is expected to generate up to 30 vehicle round trips per day during construction, including truck trips for equipment supply and delivery. After vineyard installation, operational trips that include, but are not limited to, irrigation and trellis system inspection and repair, cover crop inspection and management, erosion control measure monitoring and maintenance, and vineyard inspection, are anticipated to generate up to four round trips per day. During peak operations for activities such as vineyard pruning, weed and pest control, and harvest, the project is anticipated to generate up to 20 round trips per day, including grape haul trucks. Construction traffic would be intermittent during non-peak hours, generally arriving between 6 a.m. and 7 a.m. and departing between 2 p.m. and 3 p.m. Traffic associated with routine vineyard operation and maintenance would also be intermittent during the non-peak hours, generally arriving between 10 p.m. and 2 a.m. and departing between 7 a.m. and 10 a.m.

Because the proposed project would be expected to generate up to approximately 30 daily round trips during construction and up to 20 daily round trips for ongoing operations and maintenance, below the 110-trip threshold in the Office of Planning and Research guidelines and the County's TIS Guidelines and VMT screening criteria, the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Impacts would be less than significant.

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

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

Discussion

Notice of the proposed project was sent certified mail to the Mishewal Wappo Tribe of Alexander Valley, Middletown Rancheria, and the Yocha Dehe Wintun Nation on April 2, 2024. On April 15, 2024, Yocha Dehe responded that the project site is not within the aboriginal territories of the Tribe, and therefore the invitation for consultation was declined; the County acknowledged the response in a letter dated June 10, 2024, and closed the consultation invitation. The County sent consultation closure notices to Mishewal Wappo Tribe of Alexander Valley and Middletown Rancheria on June 10, 2024, because no request for consultation was received and more than 30 days had elapsed since the County's consultation invitations were provided.

- a-b. As discussed in **Section V (Cultural Resources)** the proposed project's cultural resources study (Archaeological Resource Service, 2022) identified four previously unrecorded sites and/or features in the project site and in the vicinity of the proposed development area; these resources have been avoided with minimum 10-foot buffers, as recommended in the cultural report. None of the resources would be threatened by the proposed project and no impacts are expected to occur during vineyard development.

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	Less Than Significant Impact	No Impact
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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 basis. It is anticipated that these workers would come from the existing labor pool in the region and would not generate an increase in the population relative to the existing conditions. Therefore, the proposed project would not create a need to construct new or modified utilities and service systems. Further, implementation of the proposed project would not result in the construction or expansion of a water or wastewater treatment facility; the proposed project would not generate wastewater, and groundwater would provide irrigation water to the vineyard (see the Groundwater Management, Wells conditions of approval in **Section X [Hydrology and Water Quality]**). Irrigation pipelines would be located in existing roads, vineyards and vineyard avenues, and/or within the proposed development area.

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

- b. Typically, the annual irrigation season ranges from late May to September. The proposed vineyard would use approximately 8.56 AF/yr from three existing groundwater wells and three developed springs that originate from groundwater to irrigate the approximately 19.8 net acres of new vineyard. The WAA prepared by RCS and Associates (**Exhibits E-1 and E-2**) concluded that after full development, total long-term groundwater demand for the project site with the new 19.8 net acres of vineyard would be 9.31 AF/yr. Based on the 10-year average annual rainfall of 29.93 inches for the project area and estimated recharge, the annual recharge rate for the project site's recharge area was calculated to be 18.0 acre-feet per year. The project groundwater recharge area's estimated groundwater demand 9.31 AF/yr with the proposed project represents approximately 50% of the average annual groundwater allotment; therefore, the proposed project would have a less-than-significant impact on water supplies. Water availability and water use are discussed in greater detail in **Section X (Hydrology and Water Quality)**.
- c. The proposed project would generate no wastewater that would require treatment, resulting in no impact on wastewater treatment providers.
- d-e. Rock removed during vineyard development would be used within the proposed development area and for the proposed erosion control features. Solid waste generated during construction activities (e.g., trash, discarded building materials, debris, etc.) would be negligible and would be cleared daily, or as necessary. Implementation of the proposed project would include pruning and harvesting activities which would generate waste material (cane). This material would generally be disposed of onsite by spreading it back into the vineyard, burning it in accordance with BAAQMD regulations, or a combination of the two. Therefore, the proposed project would not generate a volume of waste that would need to be disposed of at a landfill that would exceed the permitted capacity of applicable landfills serving the project

area. Furthermore, all waste would be disposed of in accordance with federal, state, and local statutes and regulations. Therefore, no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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 slope instability, or drainage changes?	☐	☐	☒	☐

Discussion

The project site is located in a State Responsibility Area (SRA) that is designated as Very High Fire Hazard Severity Zone (CalFire, Fire Hazard Severity Zone 2022; Napa County GIS Fire Hazard Severity Layer). The project site was burned in the 2017 Atlas fire and the 2020 LNU Lighting Complex fires. The topography of the proposed development area is characterized by moderate slopes, with slopes in the area ranging from 4% to 27%, with an average slope of approximately 12%. Approximately 0.5 acres of the proposed development area would be on slopes greater than 30%.

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

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE. Would the project:				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or	☐	☒	☐	☐

eliminate important examples of the major periods of California history or prehistory?

- b) Does the project have 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 #P24-00065-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. No special-status species have been identified in the proposed development area; however, two species of migratory birds and two species of migratory bats have the potential to occur within the project site. With the incorporation of **Mitigation Measures BIO 1 and 2**, impacts to special status bird and bat species would be avoided. The proposed development area also contains coastal live oak, which are biological communities considered sensitive by Napa County. With incorporation of **Mitigation Measure BIO-3**, 6.3 acres of oak woodland would be preserved.

New wildlife exclusion fencing would be located around the proposed vineyard blocks. Given the relatively small size of the project site (relative to existing wildlife corridors), agricultural expansion within the project site is in and of itself unlikely to result in any significant impacts to wildlife movement or migration at the landscape linkage scale. While the proposed project (vineyard) would result in portions of the site having reduced potential for on-site wildlife movement, the fencing would be limited to the vineyard blocks and would avoid riparian corridors along existing streams in the area. As such, the proposed project would not introduce any new movement barriers to wildlife and impacts to wildlife movement are expected to be less than significant, and the range of special-status plant species would not be restricted, cumulative impacts are anticipated to be less than significant.

With the incorporation of the incorporation of **Mitigation Measure CUL-1** and standard conditions to protect cultural and tribal cultural resources that may be discovered accidentally, significant impacts to cultural and tribal cultural resources are not expected (**Section V [Cultural Resources]** and **XVIII [Tribal Cultural Resources]**).

Therefore, the proposed project as designed with the incorporation of **Mitigation Measures BIO-1 through 3** and the 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 Capell Creek watershed which flows into Lake Berryessa and then to the Sacramento River and within the Milliken Creek watershed which flows into Milliken Reservoir and from there into the San Pablo Bay. The Capell Creek Drainage area contains approximately 7,397 acres. In 1993, vineyard acreage within this drainage was approximately 37 acres, or 0.5% of the drainage. Since 1993, approximately 84 acres of additional vineyard (or 1% of the drainage) have been developed to vineyard, resulting in approximately 2% of the drainage (or approximately 121 acres) containing vineyard.

The Milliken Creek Drainage area contains approximately 5,141 acres. In 1993, vineyard acreage within this drainage was approximately 404 acres, or 8% of the drainage. Since 1993, approximately 134 acres of additional vineyard (or 3% of the drainage) have been developed to vineyard, resulting in approximately 10% of the drainage (or approximately 538 acres) containing vineyard.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Capell Creek Drainage, that there are approximately 2,779 acres (38% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 121 acres), results in a total potential build out of approximately 2,900 acres or approximately 39% of the drainage.

It is estimated, based on evaluation of the County's GIS layer identifying Potentially Productive Soils within the Milliken Creek Drainage, that there are approximately 1,091 acres (21% of the drainage) having the potential to be developed to vineyard. This, in conjunction with existing and approved vineyard development (approximately 538 acres), results in a total potential build out of approximately 1,629 acres or approximately 32% 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 of reasonably foreseeable vineyard that may be developed over time, the acreage of vineyard development including approved vineyard projects in the cumulative environment (i.e., both the Capell Creek watershed and Milliken Creek watershed) over the last 31 years (1993-2024) were used to project an estimation of vineyard development for the next three to five years.

Over the past 31 years within the Capell Creek Drainage, approximately 3 acres of agriculture were developed per year (84 divided by 31). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 9 to 15 acres over the next three to five years within the Capell Creek Drainage are considered reasonable estimates.

Over the past 31 years within the Milliken Creek Drainage, approximately 4 acres of agriculture were developed per year (134 divided by 31). Combined with Napa County policies and other site selection factors that limit the amount of land that can be converted to vineyard, the development of approximately 12 to 20 acres over the next three to five years within the Milliken Creek Drainage are considered reasonable estimates.

NCC Chapter 18.108 includes policies that require setbacks of 35 to 150 feet from watercourses (depending on slopes), and General Plan Conservation Policy CON-24c that requires the retention of oak woodland at a 2:1 ratio, which limits the amount of potential vineyard acreage that could be converted within the watershed. It has been the County's experience with ECP projects that there are generally site-specific issues, such as oak woodland preservation, wetlands, other water features, special-status plant and animal species, or cultural resources that further reduce areas that can be developed to other land uses. Additionally, the vineyard acreage projections for the next three to five years do not consider environmental factors that influence vineyard site selection, such as sun exposure, soil type, water availability, slopes greater than 30%, or economic factors such as land availability, cost of development or investment returns.

Air Quality and GHG – Sections III and VIII:

The proposed project (#P24-00065-ECPA) includes the removal of vegetation and installation of vineyard and erosion control measures concurrent with other projects in the San Francisco Bay Area Air Basin that would generate emissions of criteria pollutants, including suspended PM and equipment exhaust emissions. As discussed in **Section III (Air Quality)** and shown in **Table 5** (Emissions from Vineyard Development and Operation) criteria pollutant emissions associated with development and operations are anticipated to be well below identified thresholds and therefore are not expected to result in project or cumulatively significant impacts. Additionally, the proposed project would be subject to standard air quality conditions of approval (should the proposed project be approved) that requires implementation of Air Quality BMPs to further reduce potential less-than-significant air quality effects of the proposed project and ongoing operation. While BAAQMD has no quantitative GHG threshold for comparison, the project's construction and operational equipment emissions are well below the SMAQMD GHG emission threshold of 1,100 MT CO_{2e} and can be considered less than significant.

Based on the estimates in **Tables 8 and 9**, the proposed project is estimated to result in one-time carbon stock emissions of 606.8 MT CO_{2e} while the carbon sequestration associated with the project would increase resulting in a reduction in emissions of 41.1 MT CO_{2e} over the estimated 40-year lifetime of the project, totaling 1,643.7 MT CO_{2e} emission reductions (**Table 10**). The proposed project would reduce emissions from changes in carbon stock and sequestration by 1,036.8 MT CO_{2e} over the project's lifetime. Potential contributions to air quality impacts associated with the proposed project, including GHG emissions and loss of sequestration, would be considered less than cumulatively significant through project design (i.e., scope and scale) and implementation of standard conditions of approval.

Biological Resources – Section IV:

Project-specific biological resources surveys (WRA Environmental Consultants, February 2024, revised June 2024 – **Exhibit B-1**) were performed for the proposed project to evaluate potential habitat loss and disturbance to plant and wildlife species because of the proposed project. The surveys included database records searches to identify the presence or potential presence of special-status species within the project site. The database records searches included the CNDDDB, CNPS, and USFWS databases. As discussed in **Section IV (Biological Resources)**, no special-status plant or animal species were identified in the proposed development area. There are no streams within the proposed development area that would be affected by the proposed project. With incorporation of **Mitigation Measures BIO-1 through 3**, the special-status birds and bats, as well as bird nests and bat roosts, and oak woodland would be protected. Therefore, the proposed project would not contribute to a cumulatively significant impact to special-status plants and animals or habitats.

Cultural and Tribal Cultural Resources – Sections V and XVIII:

The cultural resource reconnaissance (Archeological Resource Service, December 2022) identified four previously unrecorded sites and/or features in the project site and in the vicinity of the proposed development area; these resources have been avoided with minimum 10-foot buffers, as recommended in the cultural report. With the incorporation of Mitigation Measure CUL-1 and the standard conditions of approval to protect cultural and tribal cultural resources that may be discovered accidentally, 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 **Mitigation Measure CUL-1** and 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 5.42 tons per acre per year as compared to existing conditions (**Table 7**). The reasons for this reduction are due to the increased vegetative cover conditions within the proposed vineyard development areas and the installation of erosion control features which reduce soil loss potential. Because the proposed project would reduce soil loss as compared to existing conditions and would implement erosion and runoff control conditions of approval, the proposed project is not anticipated to contribute cumulatively to sediment production within the Capell Creek or Milliken Creek watersheds. Therefore, impacts associated with soil loss and associated sedimentation are not considered cumulatively significant.

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

Hazards and Hazardous Materials – Section IX:

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

Hydrology and Water Quality – Section X:

Water use calculations provided in the Tier 1 and 2 WAA prepared by RCS and Associates (September 2023 – **Exhibit E-1** and June 2024 – **Exhibit E-2**) indicate that the proposed development consisting of approximately 19.8 net acres of planted vineyard would result in approximately 8.56 AF/yr of groundwater use, with a total long-term water demand of approximately 9.31 AF/yr in the groundwater recharge area. The proposed project would result in less-than-significant impacts to groundwater supplies, groundwater recharge, and local groundwater aquifer levels given that anticipated annual water use of the proposed project and project well groundwater recharge area is below the anticipated annual groundwater recharge rate screening criteria (or allocation); a reduction in average rainfall under extreme drought conditions would not significantly affect demand as a percentage of recharge; there is no evidence to date indicating that there are groundwater problems or declining well production in the this area of the County; and incorporation of the standard groundwater management condition of approval would reduce potential impacts associated with groundwater use.

As discussed in **Section X. (Hydrology and Water Quality)** a Hydrology Report was prepared by David Steiner, CPESC, CPSWQ Engineering (February 2024 – **Exhibit F**). Because the proposed project does not include new diversions, create concentrated flows, or otherwise alter site drainage patterns, and does not materially alter site slopes, no net increase in runoff volumes or time of concentrations are expected as compared to pre-project conditions with the installation and maintenance of the proposed project (**Exhibit F**). Therefore, no significant impacts due to changes in hydrology are expected.

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

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

Land Use and Planning - Section XI:

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

Proposed Project Impacts Found to be Less Than Significant:

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

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

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

LIST OF FIGURES:

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

LIST OF TABLES:

Table 1	Proposed Vineyard Block Acreage
Table 2	Implementation Schedule
Table 3	Typical Annual Operations Schedule
Table 4	BAAQMD Thresholds of Significance for Construction and Operation
Table 5	Emissions from Vineyard Development and Operation
Table 6	Vegetation Types in the Project Site and Proposed Development Area
Table 7	USLE Soil Loss Analysis
Table 8	Estimated Project Site Carbon Stocks/Storage
Table 9	Change in Carbon Sequestration in the Project Site
Table 10	Estimated Overall Project-Related GHG Emissions
Table 11	Hydrologic Modeling Calculations (TR-55) Results: Runoff Rates
Table 12	Construction Equipment Noise Emission Levels
Table 13	Estimated Distance to dBA Contours from Construction Activities
Table 14	Estimated Distance to dBA Contours from Farming Activities

LIST OF EXHIBITS:

Exhibit A-1	Meka Vineyard ECP
Exhibit A-2	ECP Narrative
Exhibit A-3	Vegetation Canopy Cover Exhibit (2018 conditions)
Exhibit B-1	Biological Resource Reconnaissance Survey
Exhibit B-2	WRA Environmental Consultants Response to Comments
Exhibit B-3	Vegetation Clearing and Retention Analysis for Sensitive Domestic Water Supply Watershed (1993 conditions)
Exhibit B-4	Archaeological Resource Report (contents confidential)
Exhibit C-1	Landslide Study, Vineyard Landslide Study
Exhibit C-2	Landslide Hazard Study/Evaluation Addendum
Exhibit D	Soil Loss Analysis
Exhibit E-1	Water Availability Analysis
Exhibit E-2	Water Availability Analysis Addendum
Exhibit F	Hydrologic Analysis